

# symbase

## Portfolio Symbase Wood

Monomery / Oligomery / Fotoinicjatory





# MONOMERS

|                                  |           |
|----------------------------------|-----------|
| <u>MONOFUNCTIONAL MONOMERS</u>   | <u>06</u> |
| <u>DIFUNCTIONAL MONOMERS</u>     | <u>14</u> |
| <u>TRIFUNCTIONAL MONOMERS</u>    | <u>20</u> |
| <u>MULTI-FUNCTIONAL MONOMERS</u> | <u>22</u> |
| <u>TOLUENE FREE MONOMERS</u>     | <u>26</u> |

**MONOFUNCTIONAL  
MONOMERS**

**Typical Physical & Chemical Properties**

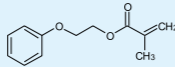
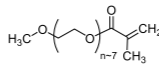
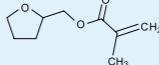
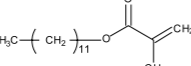
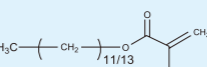
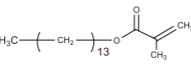
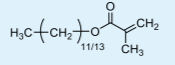
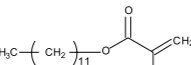
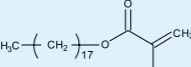
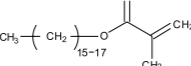
| ETERMER®  | Chemical Description                                 | Chemical Structure | Characteristics   | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Tg (°C) | Regulatory Status |      |
|-----------|--|--------------------|---|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|---------|-------------------|------|
|           |  |                    |   |              |              |                       |                      |                         |                 |                      |                 |           |         | REACH             | TSCA |
| EM105     | Tert-Butylcyclohexyl Acrylate<br>TBCHA               |                    | ·Low shrinkage<br>·Low odor<br>·Good flexibility  | Clear liquid | 60           | 0.5                   | 0.92~0.96            | 5~15                    | 1.464           | 100~300              | 28.8            | 210       | 65°C    | -                 | V    |
| EM2050    | M-Phenoxybenzyl Acrylate<br>MPOBA                    |                    | ·High gloss<br>·High refractive index<br>·Low volume shrinkage  | Clear liquid | 60           | 0.5                   | 1.12~1.15            | 13~20                   | 1.565           | 100~300              | 40.2            | 254       | 6°C     | -                 | -    |
| EM2051    | Dicyclopentenyl Acrylate<br>DCPA                     |                    | ·High Tg<br>·Good adhesion  | Clear liquid | 200          | 0.5                   | 1.15~1.16            | 70~100                  | 1.51~1.52       | 200~500              | -               | 220       | 120°C   | -                 | -    |
| EM2051EP  | Oxa-Dicyclopentanyl Acrylate<br>Oxa-DCPA             |                    | ·Low odor<br>·Dual curing<br>·High curing speed<br>·Good adhesion   | Clear liquid | 200          | 0.5                   | 1.15~1.16            | 70~100                  | 1.51~1.52       | 200~500              | -               | 220       | -       | -                 | -    |
| EM2052    | Dicyclopentenylxyethyl Acrylate<br>DCPEA             |                    | ·Good adhesion<br>·Good flexibility   | Clear liquid | 100          | 1                     | 1.08~1.10            | 15~25                   | 1.499           | 700~900              | 36.0            | 248       | 10~15°C | -                 | V    |
| EM210     | 2-Phenoxy Ethyl Acrylate<br>PHEA                     |                    | ·Low viscosity<br>·Good solvency<br>·High reactivity<br>·Suitable for screen ink                            | Clear liquid | 60           | 0.5                   | 1.10~1.11            | 5~15                    | 1.515           | 200~600              | 38.4            | 192       | 7°C     | R                 | V    |
| EM2101-HP | Ethoxylated Phenoxy Acrylate<br>PH2EOA               |                    | ·Low viscosity<br>·Good solvency<br>·High reactivity<br>·Low skin irritation                                | Clear liquid | 80           | 1                     | 1.10~1.12            | 5~25                    | 1.505~1.515     | 550~850              | -               | 236       | -       | -                 | -    |
| EM2103    | Ethoxylated Phenoxy Acrylate<br>PH3EOA               |                    | ·Low viscosity<br>·Good solvency<br>·High reactivity<br>·Low skin irritation                                | Clear liquid | 60           | 0.5                   | 1.10~1.13            | 15~35                   | 1.503           | 400~600              | 40.2            | 280       | -       | -                 | V    |
| EM2104    | 3,3,5-Trimethyl Cyclohexyl Acrylate<br>TMCHA         |                    | ·High Tg<br>·Low shrinkage<br>·Good adhesion<br>·Low surface tension  | Clear liquid | 60           | 0.5                   | 0.91~0.95            | 2~8                     | 1.453           | 100~300              | 27.1            | 196       | 43°C    | -                 | V    |
| EM2105    | Ortho-Phenyl Phenoxy Ethyl Acrylate<br>OPPEA         |                    | ·High gloss<br>·High refractive index<br>·Low volume shrinkage  | Clear liquid | 100          | 0.5                   | 1.12-1.15            | 100~200                 | 1.575           | 100~300              | 40.5            | 268       | 33°C    | -                 | V    |
| EM2107    | Cumyl Phenoxy Ethyl Acrylate<br>CPEA                 |                    | ·High gloss<br>·High refractive index<br>·Low volume shrinkage  | Clear liquid | 100          | 0.5                   | 1.09~1.11            | 130~170                 | 1.552           | 100~300              | 39.6            | 310       | -       | -                 | -    |
| EM211     | 2-(2-Ethoxyethoxy) Ethyl Acrylate<br>EOEOEA          |                    | ·Low shrinkage<br>·Good flexibility<br>·Good solvency   | Clear liquid | 60           | 0.5                   | 1.01~1.03            | 3~8                     | 1.436           | 300~600              | 31.2            | 188       | -56°C   | -                 | V    |
| EM212     | Cyclic Trimethylolpropane Formal<br>Acrylate<br>CTFA |                    | ·Low odor<br>·High hardness<br>·Fast curing speed<br>·Good abrasion resistance<br>·Good chemical resistance | Clear liquid | 100          | 0.5                   | 1.08~1.11            | 12~18                   | 1.462           | 100~300              | 35.5            | 200       | 14°C    | -                 | V    |
| EM213     | 2-Carboxylethyl Acrylate<br>β-CEA                    |                    | ·Good adhesion<br>·Good flexibility<br>·Acid functional group   | Clear liquid | 200          | 340~370               | 1.214                | 70~110                  | -               | 900~1,100            | -               | 144       | -       | -                 | V    |

**MONOFUNCTIONAL  
MONOMERS**

|          |   |                    |  |              |              |                       |                      |                         |                 |                      |                 |           |         | Typical Physical & Chemical Properties |      |  |
|----------|---|--------------------|--|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|---------|--|------|--|
| ETERMER® | Chemical Description                          | Chemical Structure | Characteristics  | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Tg (°C) | Regulatory Status                      |      |  |
|          |   |                    |  |              |              |                       |                      |                         |                 |                      |                 |           |         | REACH                                  | TSCA |  |
| EM214    | Tetrahydrofurfuryl Acrylate THFA              |                    | <ul style="list-style-type: none"> <li>• Good weatherability</li> <li>• Good chemical resistance</li> <li>• Excellent adhesion on PC substrates</li> </ul>                             | Clear liquid | 20           | 0.5                   | 1.06~1.07            | 4~6                     | 1.455           | 600                  | 34.9            | 154       | -15°C   | -                                      | V    |  |
| EM2142   | 2-(2-oxo-3-oxazolidinyl)ethyl acrylate        |                    | <ul style="list-style-type: none"> <li>• Low odor</li> <li>• Good hydrophilic</li> <li>• High curing speed</li> <li>• Good adhesion</li> </ul>   | Clear liquid | 200          | 0.2                   | 1.10~1.30            | 30~60                   | 1.480~1.490     | 300~600              | -               | 185       | -       | -                                      | -    |  |
| EM215    | Lauryl Acrylate LA                            |                    | <ul style="list-style-type: none"> <li>• Low shrinkage</li> <li>• Good flexibility</li> <li>• Good weatherability</li> <li>• Good water resistance</li> </ul>                          | Clear liquid | 100          | 0.5                   | 0.86~0.88            | 4~8                     | 1.442           | 150~250              | 29.0            | 240       | -30°C   | -                                      | V    |  |
| EM218    | Stearyl Acrylate SA                           |                    | <ul style="list-style-type: none"> <li>• Low shrinkage</li> <li>• Good flexibility</li> <li>• Good weatherability</li> <li>• Good water resistance</li> </ul>                          | Solid        | 60           | 0.5                   | -                    | -                       | -               | 150~250              | -               | 324       | 46°C    | -                                      | V    |  |
| EM2181   | Propoxylate Nonylphenol Acrylate NP2.5POA     |                    | <ul style="list-style-type: none"> <li>• Low shrinkage</li> <li>• Good adhesion</li> <li>• Good flexibility</li> </ul>   | Clear liquid | 100          | 0.5                   | 0.98~0.99            | 100~150                 | 1.489           | 400~600              | 32.9            | 419       | -20°C   | -                                      | V    |  |
| EM219    | Isodecyl Acrylate ISODA                       |                    | <ul style="list-style-type: none"> <li>• Low shrinkage</li> <li>• Good flexibility</li> <li>• Good weatherability</li> <li>• Good water resistance</li> </ul>                          | Clear liquid | 60           | 0.2                   | 0.85~0.95            | 2~8                     | 1.438           | 100~300              | 27.1            | 211       | -58°C   | -                                      | V    |  |
| EM2191   | C8-C10 Acrylate ODA                           |                    | <ul style="list-style-type: none"> <li>• Low shrinkage</li> <li>• Good flexibility</li> <li>• Good weatherability</li> <li>• Good water resistance</li> </ul>                          | Clear liquid | 60           | 0.5                   | 0.86~0.89            | 2~8                     | 1.434           | 200~500              | 27.1            | 184~212   | -56°C   | -                                      | V    |  |
| EM2192   | Isooctyl Acrylate IOA                         |                    | <ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• Low shrinkage</li> <li>• Good flexibility</li> <li>• Good weatherability</li> <li>• Good water resistance</li> </ul> | Clear liquid | 60           | 0.1                   | 0.86~0.89            | 2~8                     | -               | 100~200              | -               | 184       | -60°C   | -                                      | V    |  |
| EM2193   | Isononyl Acrylate INAA                        |                    | <ul style="list-style-type: none"> <li>• Low viscosity and low shrinkage</li> <li>• Good flexibility and good weatherability</li> <li>• Good water resistance</li> </ul>               | Clear liquid | 60           | 0.1                   | -                    | 2~8                     | -               | 100~200              | -               | 198       | -60°C   | -                                      | -    |  |
| EM254    | C16-C18 Acrylate                              |                    | <ul style="list-style-type: none"> <li>• Low shrinkage</li> <li>• Good flexibility</li> <li>• Good weatherability</li> <li>• Good water resistance</li> </ul>                          | Clear liquid | 60           | 0.2                   | -                    | 9~35                    | -               | 50~150               | -               | 282~310   | -       | -                                      | v    |  |
| EM3060-T | (3-Ethyloxetane-3-yl)methyl Methacrylate OXMA |                    | <ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• Good solvency</li> <li>• Cation curing</li> </ul>  | Clear liquid | 30           | -                     | 1.02                 | 2~8                     | 1.454           | 100~140              | 32.4            | 184       | -       | -                                      | -    |  |

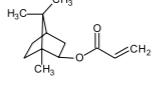
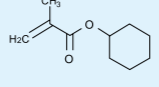
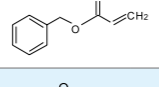
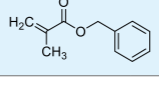
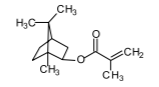
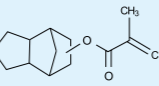
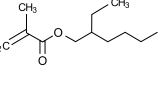
**MONOFUNCTIONAL  
MONOMERS**

**Typical Physical & Chemical Properties**

| ETERMER®  | Chemical Description  | Characteristics   | Appearance            | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Tg (°C) | Regulatory Status |      |
|-----------|---|---|-----------------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|---------|-------------------|------|
|           |   |   |                       |              |                       |                      |                         |                 |                      |                 |           |         | REACH             | TSCA |
| EM310     | 2-Phenoxy Ethyl Methacrylate<br>PHEMA<br>                            | <ul style="list-style-type: none"> <li>Low viscosity</li> <li>Good solvency</li> <li>High reactivity</li> </ul>                                       | Clear liquid          | 60           | 0.5                   | 1.06~1.08            | 5~15                    | 1.511           | 200~600              | 38.3            | 206       | 47°C    | -                 | V    |
| EM3105    | Methoxy Polyethylene Glycol(350)<br>Methacrylate<br>MPEG(350)MA<br>  | <ul style="list-style-type: none"> <li>Hydrophilic properties</li> <li>Good flexibility</li> </ul>  | Yellow clear liquid   | 3 (Gardner)  | 0.1% as MAA           | -                    | -                       | -               | 4,500-5,500          | -               | 418       | -60°C   | -                 | V    |
| EM314     | Tetrahydrofurfuryl Methacrylate<br>                                  | <ul style="list-style-type: none"> <li>Good weatherability</li> <li>Good solvent resistance</li> <li>Good adhesion on plastic substrates</li> </ul>   | Clear liquid          | 30           | 0.5                   | 1.04~1.05            | 4~10                    | 1.458           | 600                  | 34.0            | 170       | 47°C    | -                 | V    |
| EM315     | Lauryl Methacrylate<br>LMA<br>                                       | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Clear liquid          | 60           | 0.5                   | 0.86~0.89            | 4~8                     | 1.441           | 900~1,100            | 28.9            | 254       | -60°C   | -                 | V    |
| EM315C-LM | Lauryl Methacrylate (C12/C14 mixture)<br>LMA (C12/C14 mixture)<br>   | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Clear liquid          | 60           | 0.2                   | 0.86~0.89            | 4~8                     | -               | 100~150              | -               | 254~282   | -       | -                 | v    |
| EM3154    | Tetradecyl methacrylate<br>  | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Clear liquid          | 60           | 0.1                   | 0.86~0.89            | 4~8                     | 1.448           | 75~125               | -               | 282       | -       | -                 | v    |
| EM315C    | Lauryl Methacrylate (C12/C14 mixture)<br>LMA (C12/C14 mixture)<br> | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Clear liquid          | 60           | 0.2                   | 0.86~0.89            | -                       | -               | 600~800              | -               | 254~282   | -60°C   | -                 | V    |
| EM315-LM  | Lauryl Methacrylate<br>LMA<br>                                     | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Clear liquid          | 60           | 0.5                   | 0.86~0.89            | 4~8                     | 1.441           | 100~300              | 28.9            | 254       | -60°C   | -                 | V    |
| EM35      | Stearyl Methacrylate<br>SMA<br>                                    | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Solid                 | 100          | 0.5                   | -                    | -                       | -               | 230~330              | -               | 338       | 38°C    | -                 | V    |
| EM354     | C16-C18 Methacrylate<br>   | <ul style="list-style-type: none"> <li>Low shrinkage</li> <li>Good flexibility</li> <li>Good weatherability</li> <li>Good water resistance</li> </ul> | Solid or Clear liquid | 60           | 0.5                   | 0.86~0.87            | 9~35                    | 1.4503          | 60~200               | 29.4            | 296~324   | -       | -                 | V    |

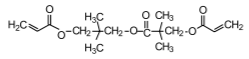
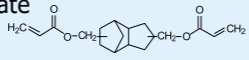
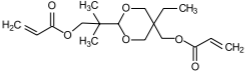
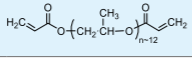
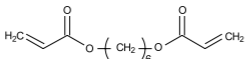
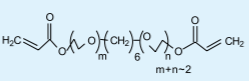
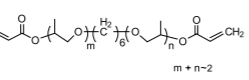
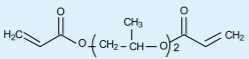
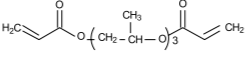
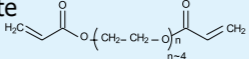
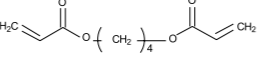
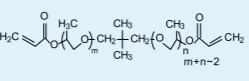
**MONOFUNCTIONAL  
MONOMERS**

**Typical Physical & Chemical Properties**

| ETERMER® | Chemical Description   | Characteristics  | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Tg (°C) | Regulatory Status |      |
|----------|--|--|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|---------|-------------------|------|
|          |  |  |              |              |                       |                      |                         |                 |                      |                 |           |         | REACH             | TSCA |
| EM70     | Isobornyl Acrylate<br>IBOA<br>              | <ul style="list-style-type: none"> <li>• Good adhesion</li> <li>• Good toughness</li> <li>• Excellent abrasion resistance</li> <li>• Good water and heat resistance</li> </ul>     | Clear liquid | 50           | 0.2                   | 0.98~1.00            | 5~15                    | 1.474           | 80~120               | 29.5            | 208       | 72°C    | -                 | V    |
| EM71     | Cyclohexyl Methacrylate<br>CHMA<br>         | <ul style="list-style-type: none"> <li>• Chemical resistance</li> <li>• Harness</li> <li>• Hydrolytic stability</li> <li>• Weatherability</li> <li>• Scratch resistance</li> </ul> | Clear liquid | 50           | 0.5                   | 0.97~0.98            | 1~5                     | 1.457           | 100                  | 30.5            | 168       | 105°C   | -                 | V    |
| EM75     | Benzyl Acrylate<br>BA<br>                   | <ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• Good solvency</li> <li>• High reactivity</li> </ul>  | Clear liquid | 100          | 0.5                   | 1.05~1.07            | 3~6                     | 1.517           | 100~250              | 36.3            | 162       | 11°C    | -                 | V    |
| EM77DN   | Benzyl Methacrylate<br>BZMA<br>             | <ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• Good solvency</li> <li>• High refraction index</li> </ul>  | Clear liquid | 50           | 0.5                   | 1.03~1.05            | 2~7                     | 1.51~1.52       | 180~220              | 34.7            | 176       | 53°C    | -                 | V    |
| EM90     | Isobornyl Methacrylate<br>IBOMA<br>         | <ul style="list-style-type: none"> <li>• Good adhesion</li> <li>• Good toughness</li> <li>• Excellent abrasion resistance</li> <li>• Good water and heat resistance</li> </ul>     | Clear liquid | 30           | 0.5                   | 0.97~0.99            | 2~10                    | 1.474           | 120~180              | 29.4            | 222       | 96°C    | -                 | V    |
| EM93-C   | Dicyclopentanyl Methacrylate<br>HDCPMA<br> | <ul style="list-style-type: none"> <li>• Low moisture absorption</li> <li>• Heat resistant</li> <li>• Good weatherability</li> <li>• Adhesion</li> </ul>                           | Clear liquid | 100          | 0.5                   | 1.03~1.05            | 7~17                    | 1.491           | 20~80                | -               | 220       | -       | -                 | -    |
| EM96P    | 2-Ethylhexyl Methacrylate<br>EHMA<br>     | <ul style="list-style-type: none"> <li>• Adhesion</li> <li>• Flexibility</li> <li>• Hydrophobicity</li> </ul>  | Clear liquid | 50           | 0.5                   | 0.87~0.89            | 3~7                     | 1.439           | 100                  | 27.6            | 198       | -       | -                 | V    |

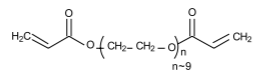
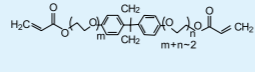
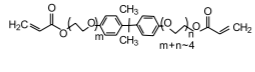
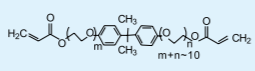
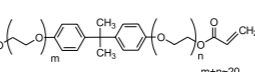
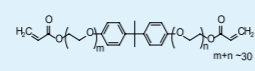
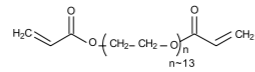
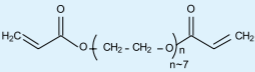
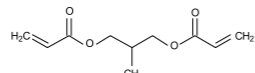
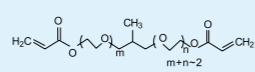
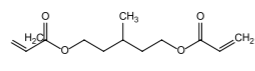
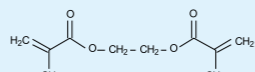
# DIFUNCTIONAL MONOMERS

## Typical Physical & Chemical Properties

| ETERMER® | Chemical Description  | Characteristics  | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Tg (°C) | Regulatory Status |      |
|----------|---|--|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|---------|-------------------|------|
|          |   |  |              |              |                       |                      |                         |                 |                      |                 |           |         | REACH             | TSCA |
| EM2202   | Hydroxypivalyl Hydroxypivalate Diacrylate<br>HPHPDA<br>    | <ul style="list-style-type: none"> <li>Low irritation</li> <li>Good solvency</li> <li>Good flexibility</li> <li>Good water resistance</li> <li>Improvement for adhesion on metals</li> </ul>                                   | Clear liquid | 100          | 0.5                   | 1.04~1.06            | 15~35                   | 1.453           | 400~600              | 32.0            | 312       | -       | -                 | V    |
| EM2204   | Tricyclodecane Dimethanol Diacrylate<br>DCPDA<br>          | <ul style="list-style-type: none"> <li>Good toughness and hardness</li> <li>Good heat and chemical resistance</li> <li>Excellent low shrinkage and curing speed</li> </ul>   | Clear liquid | 100          | 0.5                   | 1.09~1.11            | 110~150                 | 1.501           | 500~800              | 37.9            | 304       | -       | -                 | V    |
| EM2205   | Dioxane Glycol Diacrylate<br>DOGDA<br>                     | <ul style="list-style-type: none"> <li>High Tg</li> <li>Fast cure speed</li> <li>Good heat and chemical resistance</li> <li>Low volume shrinkage (after curing)</li> <li>Improved adhesion on non-porous substrates</li> </ul> | Clear liquid | 60           | 0.5                   | 1.07~1.09            | 250~450                 | 1.470           | 100~300              | 34.2            | 326       | -       | -                 | V    |
| EM2206   | Di-Functional Acrylate Monomer  | <ul style="list-style-type: none"> <li>High refractive index</li> <li>Good thermal resistance</li> </ul>   | Clear liquid | 100          | 0.5                   | 1.155~1.165          | 1,500~2,500             | 1.589           | 400~600              | 42.5            | -         | -       | -                 | -    |
| EM2206-2 | Di-Functional Acrylate Monomer  | <ul style="list-style-type: none"> <li>High refractive index</li> <li>Good thermal resistance</li> </ul>   | Clear liquid | 100          | 0.5                   | -                    | 15,000~30,000           | 1.600           | 300~700              | -               | -         | -       | -                 | -    |
| EM2208   | Polypropylene Glycol (700) Diacrylate<br>PPG(700)DA<br>    | <ul style="list-style-type: none"> <li>Low odor</li> <li>Good flexibility</li> </ul>   | Clear liquid | 80           | 0.5                   | 1.012~1.016          | 60~75                   | -               | 100~300              | -               | 836       | -30°C   | -                 | -    |
| EM2209   | Di-Functional Acrylate Monomer  | <ul style="list-style-type: none"> <li>High refractive index</li> <li>Good thermal resistance</li> </ul>   | Clear liquid | 100          | 0.5                   | 1.18~1.20            | 100,000~150,000         | 1.610~1.620     | -                    | -               | -         | -       | -                 | -    |
| EM2209-1 | Di-Functional Acrylate Monomer  | <ul style="list-style-type: none"> <li>High refractive index</li> <li>Good thermal resistance</li> <li>Low viscosity</li> </ul>  | Clear liquid | 150          | 1                     | 1.12~1.14            | 80~180                  | 1.600~1.610     | -                    | 40.2            | -         | -       | -                 | -    |
| EM221    | 1,6-Hexanediol Diacrylate<br>HDDA<br>                    | <ul style="list-style-type: none"> <li>Good weatherability</li> <li>Good adhesion on plastic substrates</li> <li>Good solvency on acrylate oligomers</li> </ul>  | Clear liquid | 60           | 0.2                   | 1.01~1.03            | 5~10                    | 1.455           | 100~250              | 34.5            | 226       | -       | R                 | V    |
| EM2211   | Ethoxylated 1,6-Hexanediol Diacrylate<br>HD2EODA<br>     | <ul style="list-style-type: none"> <li>Low skin irritation</li> <li>Low volatility and viscosity</li> </ul>  | Clear liquid | 70           | 0.5                   | 1.04~1.07            | 15~20                   | 1.459           | 100~300              | 37.0            | 314       | -       | -                 | V    |
| EM2216   | Propoxylated 1,6-Hexanediol Diacrylate<br>HD2PODA<br>    | <ul style="list-style-type: none"> <li>Good solvency</li> <li>Good flexibility</li> <li>Low irritation</li> <li>Good yellowing resistance</li> </ul>   | Clear liquid | 100          | 0.5                   | 1.01~1.02            | 15~18                   | 1.450-1.460     | 200~300              | -               | 342       | -       | -                 | V    |
| EM222    | Dipropylene Glycol Diacrylate<br>DPGDA<br>               | <ul style="list-style-type: none"> <li>Fast cure speed</li> <li>Excellent solvency</li> <li>Low volatility and viscosity</li> </ul>  | Clear liquid | 60           | 0.5                   | 1.04~1.10            | 7~13                    | 1.449           | 400~600              | 32.4            | 242       | -       | R                 | V    |
| EM223    | Tripropylene Glycol Diacrylate<br>TPGDA<br>              | <ul style="list-style-type: none"> <li>Good flexibility</li> <li>Low volatility and viscosity</li> </ul>   | Clear liquid | 50           | 0.5                   | 1.035~1.05           | 8~16                    | 1.448           | 600 max.             | 32.0            | 300       | -       | R                 | V    |
| EM224    | Polyethylene Glycol (200) Diacrylate<br>PEG(200)DA<br>   | <ul style="list-style-type: none"> <li>Low volatility</li> <li>Good flexibility</li> <li>Low skin irritation</li> </ul>  | Clear liquid | 70           | 0.5                   | 1.08~1.13            | 10~30                   | 1.462           | 600 max.             | 39.0            | 308       | -       | R                 | V    |
| EM2241   | 1,4-Butanediol Diacrylate<br>1,4-BDDA<br>                | <ul style="list-style-type: none"> <li>Hydrophobic</li> <li>High reactivity</li> <li>Good solvency</li> </ul>  | Clear liquid | 100          | 0.5                   | 1.05~1.07            | 5~10                    | 1.454           | 100~300              | 34.8            | 198       | -       | -                 | V    |
| EM2251   | Propoxylated Neopentyl Glycol Diacrylate<br>NPG2PODA<br> | <ul style="list-style-type: none"> <li>Improved flexibility</li> <li>Improved adhesion</li> <li>Low surface tension</li> <li>Low volume shrinkage in polymerization</li> </ul>   | Clear liquid | 80           | 0.5                   | 1.00~1.03            | 10~20                   | 1.446           | 200~500              | 30.2            | 328       | -       | -                 | V    |

**DIFUNCTIONAL  
MONOMERS**

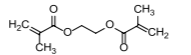
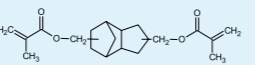
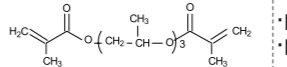
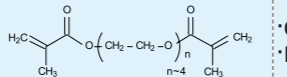
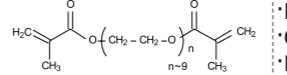
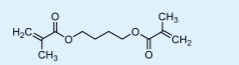
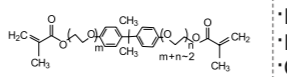
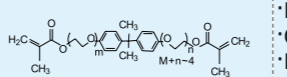
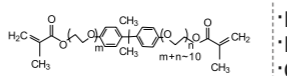
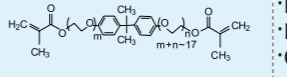
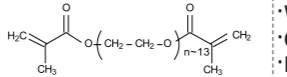
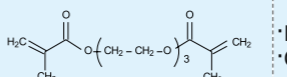
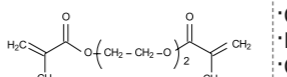
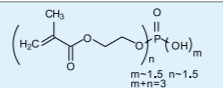
**Typical Physical & Chemical Properties**

| ETERMER® | Chemical Description   | Characteristics   | Appearance             | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |      |
|----------|--|---|------------------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|------|
|          |  |   |                        |              |                       |                      |                         |                 |                      |                 |           | REACH             | TSCA |
| EM226    | Polyethylene Glycol (400) Diacrylate<br>PEG(400)DA<br>            | <ul style="list-style-type: none"> <li>Low volatility</li> <li>Water soluble</li> <li>Good flexibility</li> </ul>   | Clear liquid           | 100          | 0.5                   | 1.11~1.12            | 30~70                   | 1.467           | 400~600              | 40.0            | 508       | R                 | V    |
| EM2260   | Ethoxylated Bisphenol-A Diacrylate<br>BPA2EODA<br>                | <ul style="list-style-type: none"> <li>Low odor</li> <li>High hardness</li> <li>High refractive index</li> <li>Good solvent resistance</li> </ul>   | Clear liquid<br>(60°C) | 100          | 0.5                   | -                    | -                       | 1.550           | 100~300              | -               | 424       | -                 | V    |
| EM2261   | Ethoxylated Bisphenol-A Diacrylate<br>BPA4EODA<br>                | <ul style="list-style-type: none"> <li>Low odor</li> <li>High hardness</li> <li>High refractive index</li> <li>Good solvent resistance</li> </ul>   | Clear liquid           | 70           | 0.5                   | 1.13~1.15            | 800~1,300               | 1.536           | 100~300              | 42.9            | 512       | -                 | V    |
| EM2265   | Ethoxylated Bisphenol-A Diacrylate<br>BPA10EODA<br>               | <ul style="list-style-type: none"> <li>Low odor</li> <li>Good flexibility</li> <li>Low skin irritation</li> <li>Excellent balance of hydrophobic</li> <li>Hydrophilic properties</li> </ul> | Clear liquid           | 100          | 0.5                   | 1.11~1.17            | 350~800                 | 1.518           | 100~300              | 43.0            | 776       | R                 | V    |
| EM2266   | Ethoxylated Bisphenol-A Diacrylate<br>BPA20EODA<br>               | <ul style="list-style-type: none"> <li>Low odor</li> <li>Good flexibility</li> <li>Low skin irritation</li> <li>Hydrophilic properties</li> </ul>   | Clear liquid           | 60           | 0.5                   | 1.125~1.140          | 500~700                 | 1.500           | 100~400              | -               | 1216      | -                 | V    |
| EM2269   | Ethoxylated Bisphenol-A Diacrylate<br>BPA30EODA<br>              | <ul style="list-style-type: none"> <li>Low odor</li> <li>Good flexibility</li> <li>Low skin irritation</li> <li>Water soluble</li> </ul>  | Clear liquid           | 60           | 0.5                   | 1.125-1.140          | 400~900                 | 1.492           | 100~400              | -               | 1656      | -                 | V    |
| EM227    | Polyethylene Glycol (600) Diacrylate<br>PEG(600)DA<br>          | <ul style="list-style-type: none"> <li>Low volatility</li> <li>Water soluble</li> <li>Good flexibility</li> </ul>   | Clear liquid           | 100          | 0.5                   | 1.11~1.14            | 80~120                  | 1.467           | 400~600              | 41.4            | 708       | R                 | V    |
| EM228    | Polyethylene Glycol (300) Diacrylate<br>PEG(300)DA<br>          | <ul style="list-style-type: none"> <li>Low volatility</li> <li>Good flexibility</li> <li>Low skin irritation</li> </ul>   | Clear liquid           | 50           | 0.5                   | 1.11~1.12            | 25~45                   | 1.464           | 400~600              | 39.0            | 408       | R                 | V    |
| EM2280   | 2-Methyl-1,3-Propanediol Diacrylate<br>MPDDA<br>                | <ul style="list-style-type: none"> <li>Excellent solvency</li> <li>High reactivity</li> </ul>   | Clear liquid           | 100          | 0.5                   | 1.04~1.06            | 5~10                    | 1.454           | 100~300              | 31.7            | 198       | -                 | -    |
| EM2288   | Ethoxylated 2-Methyl-1,3-Propanediol Diacrylate<br>MPD2EODA<br> | <ul style="list-style-type: none"> <li>Low odor</li> <li>Good flexibility</li> <li>Low skin irritation</li> </ul>   | Clear liquid           | 100          | 0.5                   | 1.04~1.08            | 13~20                   | 1.457           | 300~500              | 35.0            | 286       | -                 | -    |
| EM2295   | 3-Methyl-1,5-Pentandiol Diacrylate<br>                          | <ul style="list-style-type: none"> <li>Low viscosity</li> <li>Good weatherability</li> <li>Good adhesion to plastic</li> <li>Crystallization resistance at low temperatures</li> </ul>      | Clear liquid           | 60           | 0.5                   | 1.00~1.05            | 4~10                    | 1.455           | 100~300              | 32.5            | 226       | R                 | V    |
| EM320    | Ethylene Glycol Dimethacrylate<br>EGDMA<br>                     | <ul style="list-style-type: none"> <li>Good heat resistance</li> <li>Good weatherability</li> <li>Good abrasion resistance</li> <li>Good chemical resistance</li> </ul>                     | Clear liquid           | 60           | 2                     | 1.05~1.07            | 3~8                     | 1.454           | 100~300              | 31.7            | 198       | -                 | V    |



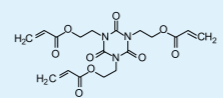
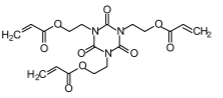
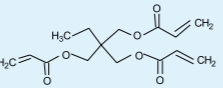
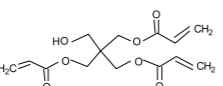
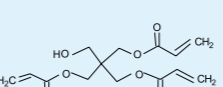
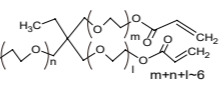
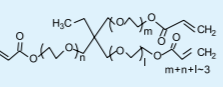
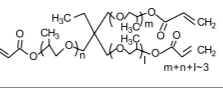
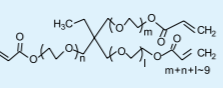
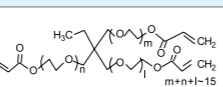
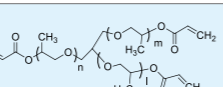
**DIFUNCTIONAL  
MONOMERS**

**Typical Physical & Chemical Properties**

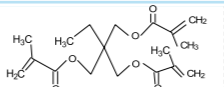
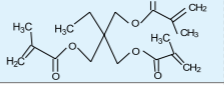
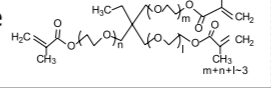
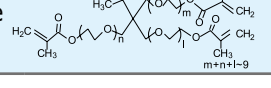
| ETERMER® | Chemical Description  | Characteristics   | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |      |
|----------|---|---|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|------|
|          |   |   |              |              |                       |                      |                         |                 |                      |                 |           | REACH             | TSCA |
| EM320-T  | Ethylene Glycol Dimethacrylate<br>EGDMA<br>                    | <ul style="list-style-type: none"> <li>• Good heat resistance</li> <li>• Good weatherability</li> <li>• Good abrasion resistance</li> <li>• Good chemical resistance</li> </ul>                       | Clear liquid | 30           | 0.5                   | 1.05~1.07            | -                       | 1.454           | 100                  | 31.7            | 198       | -                 | V    |
| EM3206   | Tricycloodecane Dimethanol Dimethacrylate<br>TCDMA<br>        | <ul style="list-style-type: none"> <li>• High Tg</li> <li>• Good abrasion resistance</li> </ul>   | Clear liquid | 200          | 0.5                   | 1.07~1.09            | 80~120                  | 1.503           | 500~800              | -               | 232       | -                 | V    |
| EM3230   | Tripropylene Glycol Dimethacrylate<br>TPGDMA<br>              | <ul style="list-style-type: none"> <li>• High reactivity</li> <li>• Low odor and skin irritation</li> </ul>   | Clear liquid | 50           | 0.5                   | 1.01~1.02            | 6~16                    | 1.450           | 400~600              | -               | 328       | -                 | V    |
| EM324    | Polyethylene Glycol (200) Dimethacrylate<br>PEG(200)DMA<br>   | <ul style="list-style-type: none"> <li>• Good flexibility</li> <li>• Low skin irritation</li> </ul>   | Clear liquid | 60           | 0.1                   | 1.07~1.09            | 10~18                   | 1.460           | 200~300              | 34.6            | 336       | R                 | V    |
| EM326    | Polyethylene Glycol (400) Dimethacrylate<br>PEG(400)DMA<br>   | <ul style="list-style-type: none"> <li>• Hydrophilic</li> <li>• Good flexibility</li> <li>• Low skin irritation</li> </ul>  | Clear liquid | 60           | 0.5                   | 1.09~1.11            | 30~40                   | 1.464           | 400~600              | 38.0            | 536       | R                 | V    |
| EM3241   | 1,4-Butanediol Dimethacrylate<br>BDMA<br>                     | <ul style="list-style-type: none"> <li>• Good solvency</li> <li>• Good reactivity</li> <li>• Good hydrophobicity</li> <li>• Low irritant</li> </ul>   | Clear liquid | 100          | 0.5                   | 1.01~1.03            | 4~8                     | 1.45~1.46       | 70~150               | -               | 226       | -                 | V    |
| EM3260   | Ethoxylated Bisphenol-A Dimethacrylate<br>BPA2EODMA<br>      | <ul style="list-style-type: none"> <li>• High reactivity</li> <li>• High hardness</li> <li>• High refractive index</li> <li>• Good abrasion resistance</li> <li>• Good chemical resistance</li> </ul> | Clear liquid | 100          | 0.5                   | 1.11~1.13            | 900~1,300               | 1.540           | 100~300              | 38.7            | 452       | -                 | V    |
| EM3261   | Ethoxylated Bisphenol-A Dimethacrylate<br>BPA4EODMA<br>     | <ul style="list-style-type: none"> <li>• High reactivity</li> <li>• Good heat resistance</li> <li>• Low skin irritation</li> <li>• Low odor and volatility</li> </ul>                                 | Clear liquid | 60           | 0.5                   | 1.11~1.13            | 500~800                 | 1.532           | 100~250              | 39.4            | 540       | -                 | V    |
| EM3265   | Ethoxylated Bisphenol-A Dimethacrylate<br>BPA10EODMA<br>    | <ul style="list-style-type: none"> <li>• Low volatility</li> <li>• High reactivity</li> <li>• Good heat resistance</li> </ul>   | Clear liquid | 100          | 0.5                   | 1.11~1.13            | 350~450                 | 1.511           | 100~250              | 41.9            | 804       | R                 | V    |
| EM3267   | Ethoxylated Bisphenol-A Dimethacrylate<br>BPA17EODMA<br>    | <ul style="list-style-type: none"> <li>• Low volatility</li> <li>• High reactivity</li> <li>• Good heat resistance</li> </ul>   | Clear liquid | 100          | 0.1                   | 1.118~1.128          | 430~530                 | -               | 90~110               | -               | 1112      | -                 | V    |
| EM327    | Polyethylene Glycol (600) Dimethacrylate<br>PEG(600)DMA<br> | <ul style="list-style-type: none"> <li>• Water soluble</li> <li>• Good flexibility</li> <li>• Low skin irritation</li> </ul>  | Clear liquid | 30           | 0.15                  | 1.10~1.11            | 55~75                   | 1.466           | 70~150               | 38.9            | 736       | R                 | V    |
| EM328    | Triethylene Glycol Dimethacrylate<br>TEGDMA<br>             | <ul style="list-style-type: none"> <li>• Low skin irritation</li> <li>• Good heat and chemical resistance</li> </ul>  | Clear liquid | 80           | 0.5                   | 1.07~1.08            | 5~15                    | 1.458           | 300 max.             | 34.7            | 286       | -                 | V    |
| EM329    | Diethylene Glycol Dimethylate<br>DEGDMA<br>                 | <ul style="list-style-type: none"> <li>• Good solvency</li> <li>• Low skin irritation</li> <li>• Good abrasion and water resistance</li> <li>• Good hardness and impact strength</li> </ul>           | Clear liquid | 100          | 0.5                   | 1.055~1.075          | 5~10                    | 1.457           | 500~700              | 33.8            | 242       | -                 | V    |
| EM39     | 2-Hydroxyethyl Methacrylate Phosphate<br>HEMAP<br>          | <ul style="list-style-type: none"> <li>• Excellent adhesion to metals</li> </ul>  | Clear liquid | 2(G)         | 280~300               | 1.27~1.29            | 1,000~1,300             | 1.464           | -                    | 35.3            | 245       | -                 | V    |

**TRIFUNCTIONAL  
MONOMERS**

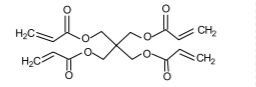
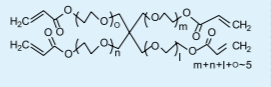
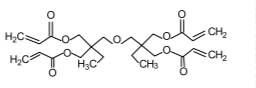
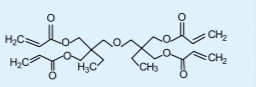
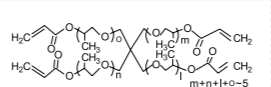
**Typical Physical & Chemical Properties**

| ETERMER® | Chemical Description                                   | Characteristics  | Appearance           | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |      |
|----------|--|--|----------------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|------|
|          |  |  |                      |              |                       |                      |                         |                 |                      |                 |           | REACH             | TSCA |
| EM2305   | Trifunctional Acid Ester                               | -  | Yellow liquid        | 5(G)         | 150-190               | 1.18~1.20            | 240~350                 | 1.469           | -                    | 36.3            | 266       | -                 | V    |
| EM2308   | Tris(2-Hydroxy Ethyl) Isocyanurate Triacrylate THEICTA | <br>·Excellent hardness<br>·Good impact strength<br>·Excellent abrasion resistances<br>·Excellent water and chemical resistance | Clear or Slight haze | 1(G)         | 0.5                   | -                    | -                       | -               | 300~600              | -               | 423       | -                 | V    |
| EM2308-1 | Tris(2-Hydroxy Ethyl) Isocyanurate Triacrylate THEICTA | <br>·Excellent hardness<br>·Good impact strength<br>·Excellent abrasion resistances<br>·Excellent water and chemical resistance | Clear liquid         | 80           | 0.5                   | 1.14~1.17            | 300~400                 | 1.480           | 600                  | 36.5            | -         | -                 | V    |
| EM231    | Trimethylolpropane Triacrylate TMPTA                   | <br>·High gloss and hardness<br>·Good abrasion resistance<br>·High reactivity and crosslink density                             | Clear liquid         | 60           | 0.2                   | 1.09~1.12            | 70~110                  | 1.472           | 100~300              | 35.0            | 296       | R                 | V    |
| EM235    | Pentaerythritol Triacrylate, PET3A                     | <br>·Fast curing rate<br>·Excellent hardness<br>·High crosslink density<br>·Excellent solvent resistance                        | Clear liquid         | 80           | 0.5                   | 1.168~1.182          | 400~550                 | 1.483           | 400~600              | 38.0            | 298       | R                 | V    |
| EM235-1  | Pentaerythritol Triacrylate PET3A                      | <br>·High Purity<br>·Fast curing speed<br>·Excellent hardness<br>·High crosslink density<br>·Excellent solvent resistance       | Clear liquid         | 30           | 0.5                   | 1.168~1.182          | 400~600                 | 1.483           | 400~600              | 38.0            | 298       | R                 | V    |
| EM2376   | Ethoxylated Trimethylolpropane Triacrylate TMP6EOTA    | <br>·Low skin irritation<br>·Excellent flexibility<br>·Fast surface curing<br>·Low volume shrinkage                           | Clear liquid         | 60           | 0.2                   | 1.100~1.115          | 60~100                  | 1.465~1.475     | 400~600              | -               | 560       | -                 | v    |
| EM2380   | Ethoxylated Trimethylolpropane Triacrylate TMP3EOTA    | <br>·Good hardness<br>·Low skin irritation<br>·More flexible than EM231   | Clear liquid         | 50           | 0.2                   | 1.101~1.109          | 50~70                   | 1.469           | 180~350              | 36.9            | 428       | R                 | V    |
| EM2381   | Propoxylated Trimethylolpropane Triacrylate TMP3POTA   | <br>·Good flexibility<br>·Low skin irritation<br>·Good water resistance   | Clear liquid         | 60           | 0.3                   | 1.04~1.066           | 70~100                  | 1.459           | 400~600              | 32.8            | 470       | -                 | V    |
| EM2382   | Ethoxylated Trimethylolpropane Triacrylate TMP9EOTA    | <br>·Low skin irritation<br>·Excellent flexibility<br>·Fast surface curing<br>·Low volume shrinkage                           | Clear liquid         | 60           | 0.5                   | 1.09~1.12            | 80~110                  | 1.470           | 200~380              | 39.1            | 692       | R                 | V    |
| EM2386   | Ethoxylated Trimethylolpropane Triacrylate TMP15EOTA   | <br>·Water soluble<br>·Good flexibility<br>·Low skin irritation   | Clear liquid         | 60           | 0.5                   | 1.105~1.124          | 120~160                 | 1.470           | 140~350              | 41.1            | 910       | -                 | V    |
| EM2387   | Propoxylated Glyceryl Triacrylate G3.5POTA             | <br>·Fast curing speed<br>·Low skin irritation<br>·Good pigment wetting<br>·Good hardness and flexibility                     | Clear liquid         | 100          | 0.5                   | 1.08~1.11            | 70~100                  | 1.461           | 200~500              | 33.9            | 457       | R                 | V    |

## TRIFUNCTIONAL MONOMERS

| ETERMER® | Chemical Description  | Chemical Structure   | Characteristics  | Appearance   | Typical Physical & Chemical Properties |                       |                      |                         |                 |                      |                 |           |                   |   |
|----------|---|--|--|--------------|--|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|---|
|          |   |  |  |              | Color (APHA)                           | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |   |
|          |   |  |  |              | REACH                                  | TSCA                  |                      |                         |                 |                      |                 |           |                   |   |
| EM331    | Trimethylolpropane Trimethacrylate<br>TMPTMA                |  | <ul style="list-style-type: none"> <li>High crosslink density</li> <li>Good heat and solvent resistance</li> <li>Good hardness and scratch resistance</li> </ul> | Clear liquid | 100                                    | 0.2                   | 1.06~1.07            | 35~50                   | 1.471           | 150~400              | 32.2            | 338       | R                 | V |
| EM331-HQ | Trimethylolpropane Trimethacrylate<br>TMPTMA                |  | <ul style="list-style-type: none"> <li>High crosslink density</li> <li>Good heat and solvent resistance</li> <li>Good hardness and scratch resistance</li> </ul> | Clear liquid | 100                                    | 0.2                   | 1.06~1.07            | 35~50                   | 1.471           | 80~150(HQ)           | 32.2            | 338       | R                 | V |
| EM3380   | Ethoxylated Trimethylolpropane Trimethacrylate<br>TMP3EOTMA |  | <ul style="list-style-type: none"> <li>Low volatility</li> <li>Good toughness</li> <li>Low skin irritation</li> <li>High crosslink density</li> </ul>            | Clear liquid | 80                                     | 0.5                   | 1.06~1.08            | 25~45                   | 1.469           | 100~300              | 36.2            | 470       | -                 | V |
| EM3382   | Ethoxylated Trimethylolpropane Trimethacrylate<br>TMP9EOTMA |  | <ul style="list-style-type: none"> <li>Low volatility</li> <li>Good toughness</li> <li>Low skin irritation</li> </ul>  | Clear liquid | 50                                     | 0.5                   | 1.085~1.095          | 60~90                   | 1.470           | 250~450              | 38.4            | 734       | -                 | V |

## MULTI-FUNCTIONAL MONOMERS

| ETERMER® | Chemical Description                                   | Chemical Structure   | Characteristics   | Appearance            | Typical Physical & Chemical Properties |                       |                      |                         |                 |                      |                 |           |                   |   |
|----------|--|--|---|-----------------------|--|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|---|
|          |  |  |   |                       | Color (APHA)                           | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |   |
|          |  |  |   |                       | REACH                                  | TSCA                  |                      |                         |                 |                      |                 |           |                   |   |
| EM241    | Pentaerythritol Tetraacrylate<br>PET4A                 |  | <ul style="list-style-type: none"> <li>Low volatility</li> <li>High reactivity</li> <li>High crosslink density</li> </ul>   | Solid or Clear liquid | 100                                    | 0.5                   | 1.17~1.18            | 400~650                 | 1.483           | 400~600              | 37.6            | 352       | -                 | V |
| EM2411   | Ethoxylated Pentaerythritol Tetraacrylate<br>PET5EO4A  |  | <ul style="list-style-type: none"> <li>High reactivity</li> <li>Low skin irritation</li> <li>High crosslink density</li> <li>More flexible than EM241</li> </ul>                | Clear liquid          | 100                                    | 0.5                   | 1.14~1.16            | 120~170                 | 1.471           | 100~300              | 38.6            | 572       | -                 | V |
| EM242    | Ditrimethylolpropane Tetraacrylate<br>DiTMP4A          |  | <ul style="list-style-type: none"> <li>Fast cure speed</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul> | Clear liquid          | 100                                    | 0.5                   | 1.095~1.105          | 400~700                 | 1.476           | 400~600              | 35.0            | 482       | R                 | V |
| EM242HW  | Ditrimethylolpropane Tetraacrylate<br>DiTMP4A          |  | <ul style="list-style-type: none"> <li>Fast cure speed</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul> | Clear liquid          | 50                                     | 0.5                   | 1.10~1.12            | 750~850                 | 1.476           | 400~600              | 35.0            | 482       | R                 | V |
| EM2421   | Propoxylated Pentaerythritol Tetraacrylate<br>PET5PO4A |  | <ul style="list-style-type: none"> <li>High reactivity</li> <li>Low skin irritation</li> <li>Good weatherability</li> <li>High crosslink density</li> </ul>                     | Clear liquid          | 100                                    | 0.5                   | 1.07~1.09            | 180~240                 | 1.462           | 300~500              | 33.1            | 642       | -                 | - |

**MULTI-FUNCTIONAL MONOMERS**

**Typical Physical & Chemical Properties**

| ETERMER® | Chemical Description  | Chemical Structure | Characteristics   | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |      |
|----------|---|--------------------|---|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|------|
|          |   |                    |   |              |              |                       |                      |                         |                 |                      |                 |           | REACH             | TSCA |
| EM263    | Dipentaerythritol Hexaacrylate DPHA                                 |                    | <ul style="list-style-type: none"> <li>High reactivity</li> <li>For LPSM application</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>                               | Clear liquid | 50           | 0.5                   | 1.17~1.19            | 5,000~7,000             | 1.487           | 400~600              | 42.0            | 578       | R                 | V    |
| EM264    | Dipentaerythritol Hexaacrylate DPHA (low solvent, 10 ppm max)       |                    | <ul style="list-style-type: none"> <li>High reactivity</li> <li>Low solvent content</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>                                | Clear liquid | 50           | 0.5                   | 1.17~1.19            | 5,000~7,000             | 1.487           | 400~600              | 42.0            | 578       | R                 | V    |
| EM265    | Dipentaerythritol Hexaacrylate DPHA                                 |                    | <ul style="list-style-type: none"> <li>High reactivity</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>   | Clear liquid | 50           | 0.5                   | 1.17~1.19            | 5,000~7,000             | 1.487           | 400~600              | 42.0            | 578       | R                 | V    |
| EM266    | Dipentaerythritol Hexaacrylate DPHA                                 |                    | <ul style="list-style-type: none"> <li>High viscosity</li> <li>High reactivity</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>                                     | Clear liquid | 50           | 0.5                   | 1.18~1.20            | 10,000~14,000           | 1.487           | 400~600              | 44.0            | 578       | R                 | V    |
| EM266HSM | Dipentaerythritol Hexaacrylate DPHA                                 |                    | <ul style="list-style-type: none"> <li>High viscosity</li> <li>High reactivity</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>                                     | Clear liquid | 100          | 0.5                   | 1.18~1.20            | 10,000~20,000           | -               | 400~600              | -               | 567       | R                 | V    |
| EM267    | Dipentaerythritol Hexaacrylate DPHA                                 |                    | <ul style="list-style-type: none"> <li>High reactivity</li> <li>Electronic grade</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>                                   | Clear liquid | 50           | 0.1                   | 1.18~1.19            | 5,000~7,000             | 1.487           | 350~600              | 42.0            | 578       | R                 | V    |
| EM2692   | 2 Mole Caprolactone Modified Dipentaerythritol Hexaacrylate DP2CAHA |                    | <ul style="list-style-type: none"> <li>High reactivity</li> <li>Electronic grade</li> <li>High crosslink density</li> <li>More flexible than EM265</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul> | Clear liquid | 100          | 1.0                   | 1.15~1.17            | 1,500~2,500             | 1.484           | 1,000                | 39.9            | 806       | -                 | V    |
| EM2696   | 6 Mole Caprolactone Modified Dipentaerythritol Hexaacrylate DP6CAHA |                    | <ul style="list-style-type: none"> <li>High reactivity</li> <li>High crosslink density</li> <li>More flexible than EM265</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul>                           | Clear liquid | 100          | 1.0                   | 1.12~1.15            | 900~1,500               | 1.480           | 1,000                | 40.3            | 1262      | -                 | V    |

**TOLUENE FREE  
MONOMERS**

**Typical Physical & Chemical Properties**

| ETERMER®  | Chemical Description                                | Chemical Structure | Characteristics   | Appearance   | Color (APHA) | Acid Value (mg KOH/g) | Sp.Gravity (at 25°C) | Viscosity (cps at 25°C) | RI (nD at 25°C) | Inhibitor (MEHQ ppm) | Surface Tension | Mw g/mole | Regulatory Status |      |
|-----------|---|--------------------|---|--------------|--------------|-----------------------|----------------------|-------------------------|-----------------|----------------------|-----------------|-----------|-------------------|------|
|           |   |                    |   |              |              |                       |                      |                         |                 |                      |                 |           | REACH             | TSCA |
| EM221-TF  | 1,6-Hexanediol Diacrylate HDDA                      |                    | <ul style="list-style-type: none"> <li>Good weatherability</li> <li>Good adhesion on plastic substrates</li> <li>Good solvency on acrylate oligomers</li> </ul>                 | Clear liquid | 60           | 0.2                   | 1.01~1.03            | 5~10                    | 1.455           | 100~250              | 34.5            | 226       | R                 | V    |
| EM222-TF  | Dipropylene Glycol Diacrylate DPGDA                 |                    | <ul style="list-style-type: none"> <li>Fast cure speed</li> <li>Excellent solvency</li> <li>Low volatility and viscosity</li> </ul>   | Clear liquid | 60           | 0.5                   | 1.04~1.10            | 7~13                    | 1.449           | 400~600              | 32.4            | 242       | R                 | V    |
| EM223-TF  | Tripropylene Glycol Diacrylate TPGDA                |                    | <ul style="list-style-type: none"> <li>Good flexibility</li> <li>Low volatility and viscosity</li> </ul>  | Clear liquid | 50           | 0.5                   | 1.035~1.05           | 8~16                    | 1.448           | 600 max.             | 32.0            | 300       | R                 | V    |
| EM2251-TF | Propoxylated Neopentyl Glycol Diacrylate NPG2PODA   |                    | <ul style="list-style-type: none"> <li>Improved flexibility</li> <li>Improved adhesion</li> <li>Low surface tension</li> <li>Low volume shrinkage in polymerization</li> </ul>  | Clear liquid | 80           | 0.5                   | 1.00~1.03            | 10~20                   | 1.446           | 200~500              | 30.2            | 328       | -                 | V    |
| EM231-TF  | Trimethylolpropane Triacrylate TMPTA                |                    | <ul style="list-style-type: none"> <li>High gloss and hardness</li> <li>Good abrasion resistance</li> <li>High reactivity and crosslink density</li> </ul>                      | Clear liquid | 60           | 0.2                   | 1.09~1.12            | 70~110                  | 1.472           | 100~300              | 35.0            | 296       | R                 | V    |
| EM2380-TF | Ethoxylated Trimethylolpropane Triacrylate TMP3EOTA |                    | <ul style="list-style-type: none"> <li>Good hardness</li> <li>Low skin irritation</li> <li>More flexible than EM231</li> </ul>  | Clear liquid | 50           | 0.2                   | 1.101~1.109          | 50~70                   | 1.469           | 180~350              | 36.9            | 428       | R                 | V    |
| EM2387-TF | Propoxylated Glyceryl Triacrylate G3.5POTA          |                    | <ul style="list-style-type: none"> <li>Fast curing speed</li> <li>Low skin irritation</li> <li>Good pigment wetting</li> <li>Good hardness and flexibility</li> </ul>           | Clear liquid | 100          | 0.5                   | 1.08~1.11            | 70~100                  | 1.461           | 200~500              | 33.9            | 457       | R                 | V    |
| EM242-TF  | Ditrimethylolpropane Tetraacrylate DiTMP4A          |                    | <ul style="list-style-type: none"> <li>Fast cure speed</li> <li>High crosslink density</li> <li>Good abrasion resistance</li> <li>Good chemical and water resistance</li> </ul> | Clear liquid | 100          | 0.5                   | 1.095~1.105          | 400~700                 | 1.476           | 400~600              | 35.0            | 482       | R                 | V    |
| EM321-TF  | 1,6-Hexanediol Dimethacrylate HDDMA                 |                    | <ul style="list-style-type: none"> <li>Good weatherability</li> <li>Good abrasion on plastic substrates</li> <li>Good solvency on acrylate oligomers</li> </ul>                 | Clear liquid | 60           | 0.5                   | 0.99~1.00            | 6~9                     | 1.456           | 100~300              | -               | 254       | -                 | V    |





# OLIGOMERS

|  |           |
|--|-----------|
| <u>WATERBORNE POLYURETHANE ACRYLATE OLIGOMER</u> | <u>30</u> |
| <u>URETHANE ACRYLATE OLIGOMERS</u>               | <u>32</u> |
| <u>EPOXY ACRYLATE OLIGOMERS</u>                  | <u>48</u> |
| <u>POLYESTER ACRYLATE OLIGOMERS</u>              | <u>52</u> |
| <u>REACTIVE AMINE SYNERGISTS</u>                 | <u>62</u> |
| <u>FULL ACRYLICS</u>                             | <u>64</u> |
| <u>SPECIFIC FUNCTIONAL ACRYLATES</u>             | <u>68</u> |

**WATERBORNE  
POLYURETHANE  
ACRYLATE  
OLIGOMER**

**Typical Physical & Chemical Properties**

| ETERCURE®       | Chemical Description                              | Characteristics  | Applications   | Functionality<br>(theoretical) | Appearance   | Acid Value<br>(mg KOH/g) | Viscosity<br>(cps at 25°C ) | Tg<br>(°C ) | Shore | Regulatory Status |      |
|-----------------|---|--|--|--------------------------------|--------------|--------------------------|-----------------------------|-------------|-------|-------------------|------|
|                 |   |  |  |                                |              |                          |                             |             |       | REACH             | TSCA |
| <b>6166W</b>    | Waterborne Aliphatic Urethane Acrylate Dispersion | <ul style="list-style-type: none"> <li>·Easy clean up</li> <li>·Good adhesion</li> <li>·Good toughness</li> <li>·Good grain wetting</li> <li>·Good color rendering</li> <li>·Good chemical resistance</li> </ul> | <ul style="list-style-type: none"> <li>·Waterborne UV primer for parquet</li> <li>·Waterborne UV wood basecoat</li> </ul>                                      | 2                              | Milky liquid | -                        | <100                        | -           | -     | -                 | V    |
| <b>DR-W413S</b> | Waterborne Aliphatic Urethane Acrylate Dispersion | <ul style="list-style-type: none"> <li>·Good adhesion</li> <li>·Good recoatability</li> <li>·Tack-free before UV cure</li> </ul>   | <ul style="list-style-type: none"> <li>·Waterborne UV melamine / PET / Metal primer</li> </ul>   | 2                              | Milky liquid | -                        | <100                        | -           | -     | -                 | V    |
| <b>DR-W490</b>  | Waterborne Aliphatic Urethane Acrylate Dispersion | <ul style="list-style-type: none"> <li>·Tin free</li> <li>·Fast curing seepd</li> <li>·Good adhesion</li> <li>·Good abrasion resistance</li> </ul>   | <ul style="list-style-type: none"> <li>·Waterborne UV wood topcoat</li> </ul>  | 6                              | Milky liquid | -                        | -                           | ≤200        | -     | -                 | -    |
| <b>DR-W495</b>  | Waterborne Aliphatic Urethane Acrylate Dispersion | <ul style="list-style-type: none"> <li>·Good adhesion</li> <li>·High hardness</li> <li>·Good chemical resistance</li> <li>·Tack-free before UV cure</li> </ul>   | <ul style="list-style-type: none"> <li>·Waterborne UV wood basecoat</li> <li>·Waterborne UV wood topcoat</li> </ul>  | 7~8                            | Milky liquid | -                        | <100                        | -           | -     | -                 | V    |
| <b>DR-W497</b>  | Waterborne Aliphatic Urethane Acrylate Dispersion | <ul style="list-style-type: none"> <li>·Good stain resistance</li> <li>·Good abrasion resistance</li> <li>·Tack free before UV curing</li> <li>·Easy matting</li> </ul>  | <ul style="list-style-type: none"> <li>·Waterborne UV anti-stain coating</li> <li>·Waterborne UV wood basecoat</li> <li>·Waterborne UV wood topcoat</li> </ul> | 7~8                            | Milky liquid | -                        | -                           | ≤200        | -     | -                 | -    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE®  | Chemical Description   | Characteristics   | Applications   | Functionality | Appearance    | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|------------|--|---|--|---------------|---------------|-----------------|---------------------|-------------------------|---------|-------|-------------------|------|
|            |  |   |  |               |               |                 |                     |                         |         |       | REACH             | TSCA |
| 6101       | Aliphatic Urethane Acrylate                                  | ·Low viscosity<br>·Good flexibility<br>·Good adhesion   | ·UV inkjet   | 1             | Clear & Clean | 1               | -                   | 20~40                   | -       | -     | -                 | V    |
| 6103       | Aliphatic Urethane Hexaacrylate                              | ·Excellent yellowing resistance<br>·Good hardness<br>·Fast curing speed   | ·UV coating with excellent weather resistance for PC car-lamp  | 6             | Clear & Clean | 1               | 5                   | 3,800~5,000             | 159.7   | 93D   | -                 | -    |
| 6106       | Aliphatic Urethane Acrylate                                  | ·Excellent yellowing resistance<br>·Good adhesion<br>·Good flexibility  | ·UV coating with excellent weather resistance for PC car-lamp  | 2             | Clear & Clean | 1               | 26.3                | 9,000~14,000            | 30.4    | 51    | -                 | V    |
| 611B-85    | Aliphatic Urethane Acrylate Diluted in 15% HDDA              | ·Good yellowing resistance<br>·Good hardness and toughness<br>·Good gloss retention   | ·Printing and varnishing for plastics PVC, wood floor-tiles  | 2             | Clear & Clean | 1               | 28.4                | 22,000~32,000           | 52.9    | 89A   | R                 | V    |
| 6112-100   | Aliphatic Urethane Acrylate                                  | ·Good yellowing resistance<br>·Good toughness<br>·Good gloss retention  | ·Coatings<br>·Inks<br>·Printing and varnishing for plastics PVC, wood floor-tiles  | 2             | Clear & Clean | 1               | 49.4                | 6,000~7,500(60°C)       | 47.7    | 96A   | R                 | V    |
| 6112-100NT | Tin-Free Aliphatic Urethane Diacrylate                       | ·Good yellowing resistance<br>·Good toughness<br>·Good gloss retention  | ·Coatings<br>·Inks<br>·Printing and varnishing for plastics PVC, wood floor-tiles  | 2             | Clear & Clean | 1               | 49.4                | 6,000~8,000(60°C)       | 47.7    | 96A   | R                 | V    |
| 6113       | Aliphatic Urethane Acrylate                                  | ·Good toughness<br>·Good yellowing resistance<br>·Improve adhesion  | ·Coatings<br>·Inks<br>·Adhesives   | 2             | Clear & Clean | 1               | 120.0               | 8,000~12,000            | -60.8   | 40A   | -                 | V    |
| 6115J-80   | Aliphatic Urethane Acrylate Diluted in 20% IBOA              | ·Excellent weatherability<br>·Good flexibility<br>·Good gloss retention<br>·Low shrinkage<br>·Good adhesion on metal substrates | ·Coatings<br>·Inks<br>·Adhesives   | 2             | Haze          | 2               | 45.2                | 2,600~4,200             | 31.8    | 70A   | -                 | V    |
| 6115T-80   | Tin-Free Aliphatic Urethane Diacrylate Diluted in 20% EOEAEA | ·Good flexibility<br>·Low shrinkage<br>·Good adhesion on metal substrates<br>·Good gloss retention                              | ·Coatings<br>·Inks<br>·Adhesives   | 2             | Clear & Clean | 1               | -                   | 2,500~4,000             | -       | -     | -                 | V    |
| 6118       | Aliphatic Urethane Acrylate                                  | ·High gloss<br>·Good flexibility<br>·Fast curing speed<br>·Excellent chemical resistance  | ·UV wood and plastic coatings<br>·UV screen ink  | 2             | Clear & Clean | 2               | 21.8                | 22,000~32,000           | -       | -     | -                 | -    |
| 61128      | Aliphatic Urethane Acrylate                                  | ·UV-LED Accelerator<br>·Reduce thiol added<br>·Fast curing speed<br>·Good yellowing resistance<br>·Good toughness               | ·Phototherapy nail polish<br>·LED curing coating   | 2             | Clean/Clear   | 1               | 6.2                 | 10,000~30,000           | 45.6    | 75D   | -                 | -    |
| 6121F-80   | Aromatic Urethane Acrylate Diluted in 20% DPGDA              | ·Good elasticity and flexibility<br>·Good abrasion resistance<br>·Good adhesion<br>·High chemical resistance                    | ·Overprint varnish for paper & board<br>·Wood finishes<br>·Coating for plastics<br>·Lithographic and screen ink vehicles | 2             | Clear & Clean | 3               | 16.1                | 19,000~32,000           | 27.4    | 70A   | -                 | V    |
| 6123       | Aliphatic Urethane Acrylate                                  | ·Fast curing speed<br>·Good leveling<br>·Good solvent resistance<br>·Good weather resistance                                    | ·Plastics varnishes<br>·Large area spraying for plastics   | 2             | Clear & Clean | 1               | 51.7                | 10,000~15,000           | 51.7    | 96A   | -                 | V    |
| 6126       | Aliphatic Urethane Acrylate                                  | ·Good heat resistance<br>·Fast curing speed<br>·Good adhesion at high temperature   | ·UV non-yellowing coating for PC car-lamp  | 2             | Clear & Clean | 1               | -                   | 30,000~40,000           | -       | -     | -                 | V    |



**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE®  | Chemical Description                                | Characteristics  | Applications  | Functionality | Appearance    | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|------------|---|--|---|---------------|---------------|-----------------|---------------------|-------------------------|---------|-------|-------------------|------|
|            |   |  |   |               |               |                 |                     |                         |         |       | REACH             | TSCA |
| 6130B-80   | Aliphatic Urethane Acrylate Diluted in 20% HDDA     | ·Low odor<br>·High crosslink density<br>·Good toughness  | ·Coatings for paper, plastics   | 3             | Clear & Clean | 1               | 13.0                | 40,000~60,000           | 65.6    | 90A   | -                 | V    |
| 61329      | Aliphatic Urethane Acrylate                         | ·Extra high breaking elongation<br>·Good yellowing resistance<br>·Good toughness<br>·Good bonding retention after HTHH aging | ·UV toughening auxiliary resin for enhancing the flexibility and impact resistance of coating<br>·UV bonding adhesive of plastic substrates, cosmetic PE pipe<br>·UV Inks | 2             | Clear & Clean | 1               | 469                 | 33,000~43,000 (60°C)    | -4.3    | 43A   | -                 | -    |
| 61363      | Aliphatic Urethane Acrylate                         | ·Low shrinkage<br>·Low hardness<br>·High tack value and medium adhesion  | ·UV pressure sensitive adhesive   | 2             | Clear & Clean | 1               | 288                 | 9,000~16,000            | -49     | 5A    | -                 | -    |
| 61365      | Aliphatic Urethane Acrylate                         | ·High adhesion<br>·Good holding power on high temperature<br>·High tack value  | ·UV pressure sensitive adhesive   | 2             | Clear & Clean | 1               | 488                 | 5,000~7,000             | -52.1   | 25A   | -                 | -    |
| 61369      | Aliphatic Urethane Acrylate                         | ·Low shrinkage<br>·Low hardness<br>·High tack value and medium adhesion  | ·UV pressure sensitive adhesive   | 2             | Clear & Clean | 1               | 508                 | 2,500~5,500             | -61.2   | 28A   | -                 | -    |
| 6142H-80   | Aliphatic Urethane Acrylate Diluted in 20% TMP3EOTA | ·Good elasticity and flexibility<br>·Good abrasion resistance<br>·Good adhesion<br>·Light color                              | ·Overprint varnishes for paper & board<br>·Coating for wood and plastics<br>·UV inks<br>·Adhesives  | 2             | Clear & Clean | 1               | -                   | 25,000~35,000           | 29.5    | 89A   | -                 | -    |
| 61438      | Aliphatic Urethane Acrylate                         | ·Excellent adhesion<br>·Excellent yellowness resistance  | ·UV Plastic coating<br>·UV Wood coating   | 2             | Clear & Clean | 1               | 10.6                | 20,000~30,000           | 81.7    | 81D   | -                 | -    |
| 6145-100   | Aliphatic Urethane Hexaacrylate                     | ·Good elasticity and flexibility<br>·Good abrasion resistance<br>·Fast curing speed<br>·Good weather resistance              | ·Overprint varnishes for paper & board<br>·UV plastic coating<br>·UV inks   | 6             | Clear & Clean | 1               | -                   | 55,000~75,000           | 104.1   | 27D   | -                 | V    |
| 6145-100H  | Aliphatic Urethane Hexaacrylate                     | ·Good abrasion resistance<br>·Good hardness  | ·Overprint varnishes for paper & board<br>·UV plastic coating<br>·UV inks   | 6             | Clear & Clean | 1               | -                   | 70,000~90,000           | 103.7   | 92D   | -                 | V    |
| 6145-100NT | Tin-Free Aliphatic Urethane Hexaacrylate.           | ·Good abrasion resistance<br>·Fast curing speed<br>·Good hardness  | ·Overprint varnishes for paper & board<br>·UV plastic coating<br>·UV inks   | 6             | Clear & Clean | 1               | 5.0                 | 55,000~75,000           | 104.1   | 27D   | -                 | V    |
| 6146-100   | Aromatic Urethane Hexaacrylate                      | ·Good elasticity and flexibility<br>·Good abrasion resistance<br>·Fast curing speed<br>·Good solvent resistance              | ·Overprint varnishes for paper & board<br>·UV plastic coating<br>·UV inks   | 6             | Clear & Clean | 1               | -                   | 30,000~40,000           | 104.6   | 33D   | -                 | V    |
| 61457      | Aliphatic Urethane Hexaacrylate                     | ·Fast curing speed<br>·Good leveling<br>·Good anti-cracking ability  | ·UV plastic coatings  | 6             | Clear & Clean | 1               | <5                  | 55,000~80,000           | 117     | 77D   | -                 | -    |
| 61458NT    | Aliphatic Urethane Hexaacrylate                     | ·Good adhesion<br>·Good leveling<br>·Good pigment compatibility  | ·UV top coating   | 6             | Clean & Clear | 1               | <5                  | 30,000~40,000           | -       | -     | -                 | -    |
| 6147       | Aliphatic Urethane Hexaacrylate                     | ·Good abrasion resistance<br>·Good yellowing resistance<br>·Good water resistance<br>·Excellent leveling                     | ·Overprint varnishes for paper & board<br>·Coatings for PMMA, ABS<br>·UV inks   | 6             | Clear & Clean | 1               | -                   | 5,000~6,000             | 85.5    | 18D   | -                 | V    |
| 6148J-75   | Aliphatic Urethane Acrylate Diluted in 25% IBOA     | ·Excellent toughness<br>·Good yellowing resistance<br>·Improve adhesion  | ·Adhesives<br>·Screen inks<br>·Metal coatings   | 2             | Clear & Clean | 1               | 238.5               | 90,000~150,000          | 19.7    | 63A   | R                 | V    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE®  | Chemical Description                                       | Characteristics  | Applications  | Functionality | Appearance    | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25 °C ) | Tg (°C ) | Shore | Regulatory Status |      |
|------------|--|--|---|---------------|---------------|-----------------|---------------------|---------------------------|----------|-------|-------------------|------|
|            |  |  |   |               |               |                 |                     |                           |          |       | REACH             | TSCA |
| 6148J-75NT | Tin-Free Aliphatic Urethane Diacrylate Diluted in 25% IBOA | ·Excellent toughness<br>·Good yellowing resistance<br>·Improve adhesion<br>·Good abrasion resistance   | ·Adhesives<br>·Screen inks<br>·Metal coatings   | 2             | Clear & Clean | 1               | 238.5               | 90,000~150,000            | 19.7     | 63A   | R                 | V    |
| 6148T-85   | Aliphatic Urethane Acrylate Diluted in 15% EOEOEA          | ·Excellent toughness<br>·Excellent elongation<br>·Improve adhesion<br>·Good abrasion resistance  | ·Adhesives<br>·Screen inks<br>·Metal coatings   | 2             | Clear & Clean | 1               | -                   | 100,000~150,000           | -23.5    | 21A   | -                 | V    |
| 615-100    | Polyether Polyol Based, Aliphatic Urethane Acrylate        | ·Excellent flexibility<br>·Fast curing speed<br>·Light color   | ·UV inks<br>·Coatings<br>·Adhesives<br>·Matt varnishes  | 2             | Clear & Clean | 1               | 8.1                 | 10,000~20,000             | -37.1    | 43A   | -                 | V    |
| 6150-100   | Aliphatic Urethane Hexaacrylate                            | ·Excellent yellowing resistance<br>·Fast curing speed<br>·Good abrasion resistance<br>·Good water resistance<br>·Good toughness and hardness | ·Screen inks<br>·Adhesives<br>·Plastic coatings   | 6             | Clear & Clean | 1               | -                   | 3,000~5,000               | 80.6     | 11D   | -                 | V    |
| 6151       | Aliphatic Urethane Acrylate                                | ·Good leveling<br>·Good adhesion to ABS/PC substrate<br>·Good abrasion<br>·Good yellowing resistance   | ·Overprinting varnishes for paper and board<br>·Wood coating<br>·UV plastic coating<br>·UV inks | 2             | Clear & Clean | 1               | -                   | 30,000~40,000             | 60.3     | 91A   | -                 | V    |
| 6153-3     | Aliphatic Urethane Acrylate                                | ·Good elongation<br>·Good yellowing resistance<br>·Good hardness and toughness<br>·Excellent adhesion  | ·UV primer for MDF covered with melamine paper<br>·UV metal coating                             | 2             | Clear & Clean | 1               | -                   | 4,000~4,500(60°C )        | -        | -     | -                 | V    |
| 6154B-80   | Aliphatic Urethane Acrylate Diluted in 20% HDDA            | ·Low viscosity<br>·Good stain resistance<br>·Good adhesion   | ·Anti-stain coatings<br>·UV plastic coating   | 2             | Clear & Clean | 1               | -                   | 5,000~9,000               | 83.6     | 84A   | -                 | V    |
| 6157B-80   | Aliphatic Urethane Acrylate Diluted in 20% HDDA            | ·Good water resistance<br>·Good heat resistance<br>·Good yellowing resistance<br>·Good weather resistance                                    | ·Coatings<br>·Inks  | 2             | Clear & Clean | 1               | -                   | 150,000~250,000           | 81.4     | 94A   | -                 | -    |
| 6158B-80   | Aliphatic Urethane Acrylate Diluted in 20% HDDA            | ·Good heat resistance<br>·Good yellowing resistance<br>·Good weather resistance  | ·Overprint varnishes for paper & board<br>·UV plastic coating<br>·UV inks                       | 3.8           | Clear & Clean | 1               | 2.0                 | 40,000~50,000             | 72.4     | 94A   | -                 | -    |
| 6161-100   | Aliphatic Urethane Hexaacrylate                            | ·Fast curing speed<br>·Good abrasion resistance<br>·Good solvent resistance  | ·Coatings for PC,ABS and PET  | 6             | Clear & Clean | 1               | -                   | 13,000~19,000             | 89.1     | 25D   | -                 | V    |
| 6164       | Aliphatic Urethane Acrylate                                | ·Good curing speed<br>·Good leveling<br>·High gloss  | ·UV plastic coating   | 2             | Clear & Clean | 0.5             | -                   | 30,000~50,000             | -        | -     | -                 | -    |
| 6165       | Aliphatic Urethane Acrylate                                | ·Excellent leveling<br>·Good hardness<br>·Good anti-cracking<br>·Good solvent resistance   | ·UV WB plastic coating<br>·UV WB wood coating   | 4             | Clear & Clean | 1               | 5                   | 1,700~4,000               | -        | -     | -                 | -    |
| 6168       | Aliphatic Urethane Acrylate                                | ·Excellent flexibility<br>·Soft touch effect   | ·UV plastic coating<br>·UV wood coating<br>·Overprint varnish for paper                         | 2             | Clear & Clean | 1               | 5.0                 | 12,000~17,000             | -8.9     | -     | -                 | V    |
| 6170       | Aliphatic Urethane Acrylate                                | ·Good leveling<br>·Excellent yellowing resistance  | ·UV plastic coating<br>·UV wood coating<br>·UV VM topcoat                                       | 4~5           | Clear & Clean | 1               | -                   | 1,000~3,000               | -        | -     | -                 | -    |
| 6170D      | Aliphatic Urethane Acrylate                                | ·Good yellowing resistance<br>·Good toughness<br>·Excellent leveling   | ·UV plastic coating<br>·UV wood coating<br>·UV VM coating                                       | 4~5           | Clear & Clean | 1               | 5.0                 | 500~1,100                 | 86.3     | -     | -                 | -    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                          | Characteristics   | Applications   | Functionality | Appearance    | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|---|---|--|---------------|---------------|-----------------|---------------------|-------------------------|---------|-------|-------------------|------|
|           |   |   |  |               |               |                 |                     |                         |         |       | REACH             | TSCA |
| 6172-1    | Aliphatic Urethane Acrylate                   | ·Good toughness<br>·Good leveling<br>·Good heat resistance<br>·Good abrasion resistance   | ·UV topcoat for thermal set acrylic primer (aluminum or black-color) of notebook computer                        | 2             | Clear & Clean | 1               | -                   | 1,700~2,300             | 78.1    | -     | -                 | -    |
| 6175-3    | Modified Solvent Based Urethane Acrylate      | ·Excellent solvent resistance<br>·Good sweat resistance<br>·Good adhesion to metal substrate  | ·UV topcoat for mobile phone covers, cosmetics plastic board, copper and tinplate                                | -             | Clear & Clean | 1               | -                   | 5,000~8,000             | 81.1    | 92A   | -                 | V    |
| 61758     | Modified Solvent Based Urethane Acrylate      | ·Excellent solvent resistance<br>·Good sweat resistance<br>·Good adhesion to metal substrate<br>·UV topcoat for mobile phone covers, cosmetics plastic board, copper and tinplate | ·UV topcoat for mobile phone covers, cosmetics plastic board, copper and tinplate                                | 1             | Clear & Clean | 1               | -                   | 5,000~10,000            | -29     | -     | -                 | -    |
| 6176      | Modified Solvent Based Urethane Acrylate      | ·Good flexibility<br>·Good water resistance<br>·Good adhesion to metal substrate<br>·Good pigment and dye dispersion  | ·UV midcoat for mobile phone covers, copper and tinplate.  | -             | Clear & Clean | 1               | -                   | 1,300~1,700             | 44.6    | 21A   | -                 | V    |
| 6185      | Aliphatic Urethane Acrylate                   | ·Good adhesion<br>·Good water resistance<br>·Good flexibility   | ·UV VM base coating  | 2             | Clear & Clean | 1               | -                   | 25,000~35,000(60°C)     | -42.4   | -     | -                 | -    |
| 61856     | Aliphatic Urethane Acrylate                   | ·Good adhesion<br>·Good boiling water resistance<br>·Excellent flexibility  | ·UV. plastic coating<br>·UV V.M. primer  | 2             | Clear & Clean | 3               | -                   | 25,000~55,000 (60°C)    | -       | -     | R                 | -    |
| 61857     | Aliphatic Urethane Acrylate                   | ·Good leveling<br>·Easily metalized<br>·Excellent boiling water resistance  | ·UV. plastic coating<br>·UV V.M. primer  | 2             | Clear & Clean | 3               | <5                  | 5,000~11,000            | 111.2   | 82D   | -                 | -    |
| 6194      | Aliphatic Urethane Diacrylate                 | ·Excellent weatherability<br>·Excellent flexibility<br>·Excellent anti-cracking<br>·Excellent water resistance  | ·UV plastic coating<br>·UV wood coating<br>·UV weather resistant coating for PC car-lamp                         | 6             | Clear & Clean | 1               | 5.0                 | 25,000~40,000           | 94.0    | 75D   | -                 | V    |
| 6195-100  | Aliphatic Urethane Acrylate                   | ·Good leveling<br>·Good abrasion resistance<br>·High hardness   | ·UV topcoat for plastic<br>·UV topcoat application for vacuum metallization<br>·UV coating for artificial marble | 10            | Clear & Clean | 1               | -                   | 75,000~95,000           | 53.9    | 33D   | -                 | -    |
| 6196-100  | Aliphatic Urethane Acrylate                   | ·Fast curing speed<br>·Good abrasion resistance   | ·UV VM coating<br>·UV plastic coating<br>·UV inks  | 15            | Clear & Clean | 1               | -                   | 200,000~300,000         | 51.5    | 35D   | -                 | -    |
| 61967     | Aliphatic Urethane Acrylate                   | ·Excellent steel wool abrasion resistance<br>·High hardness<br>·Anti-stain  | ·UV topcoat on plastic<br>·PMMA Hard coat  | 15            | Haze          | -               | <5                  | 3,000~4,000             | 122     | 88    | -                 | -    |
| 6197H     | Aliphatic Urethane Hexaacrylate               | ·Good toughness<br>·Good abrasion resistance<br>·Good yellowing resistance  | ·Coats of UV vacuum metallization<br>·UV plastic coating   | 6             | Clear & Clean | 1               | -                   | 50,000~65,000           | -       | -     | -                 | V    |
| 6199      | Aliphatic Urethane Acrylate                   | ·Excellent toughness<br>·Low shrinkage<br>·Good anti-cracking   | ·UV spray topcoat on plastic<br>·UV VM topcoat   | 9             | Clear & Clean | 1               | <5                  | 100,000~150,000         | 135.5   | 94D   | -                 | -    |
| 61992     | Aliphatic Urethane Acrylate                   | ·Fast curing speed<br>·Excellent steel wool resistance<br>·High hardness  | ·UV Hardcoat   | 10            | Clear & Clean | 1               | <5                  | 120,000~220,000         | 116.7   | 94D   | -                 | -    |
| 61998     | Fluorine Modified Aliphatic Urethane Acrylate | ·Excellent steel wool abrasion resistance<br>·High hardness<br>·Anti-stain  | ·UV Hardcoat   | 15            | Clear & Clean | 1               | <5                  | 4~6                     | 117     | 83D   | -                 | -    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE®  | Chemical Description                     | Characteristics  | Applications  | Functionality | Appearance    | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|------------|--|--|---|---------------|---------------|-----------------|---------------------|-------------------------|---------|-------|-------------------|------|
|            |  |  |   |               |               |                 |                     |                         |         |       | REACH             | TSCA |
| 5104D      | Aliphatic Urethane Acrylate              | ·Low viscosity<br>·High hardness<br>·Good abrasion resistance<br>·Easy to matting  | ·UV non-solvent spray coating<br>·UV topcoat coating for wood   | -             | Clear & Clean | 1               | -                   | 600~900                 | -       | -     | -                 | -    |
| DR-U010    | Aliphatic Urethane Acrylate              | ·Good adhesion to pre-treated PP substrates<br>·Good adhesion to aluminum substrates<br>·Good toughness  | ·UV screen ink<br>·UV vacuum metallization primer coatings for pre-treated PP substrates                                    | 3             | Clear & Clean | 1               | -                   | 8,000~12,000            | 82.0    | 7D    | -                 | V    |
| DR-U011    | Aliphatic Urethane Hexaacrylate          | ·Fast curing speed<br>·Good self-matting<br>·Good abrasion resistance  | ·UV matting coatings for plastic<br>·UV matting coatings for wood   | 6             | Slight haze   | -               | -                   | 150~300                 | 124.2   | 6D    | -                 | V    |
| DR-U012    | Aliphatic Urethane Hexaacrylate          | ·Low viscosity<br>·Fast curing speed<br>·Good surface effect<br>·Good self-matting property  | ·UV matting topcoat for wood<br>·UV matting topcoat for plastic   | 6             | Clear & Clean | 1               | -                   | 10~30                   | -       | -     | -                 | V    |
| DR-U021    | Aliphatic Urethane Acrylate              | ·Good leveling<br>·Good yellowing resistance<br>·Good anti-cracking  | ·UV plastic coating<br>·UV wood coating   | 2             | Clear & Clean | 1               | -                   | 5,000~8,000             | 82.2    | 95A   | R                 | -    |
| DR-U024    | Aliphatic Urethane acrylate              | ·Good yellowing resistance<br>·Good Flexibility<br>·Good levelling<br>·Anti-cracking   | ·UV top-coating of plastic<br>·UV top-coating of wood   | 6             | Clear & Clean | 1               | -                   | 2,700~3,700             | -       | -     | R                 | -    |
| DR-U028FS  | Aromatic Urethane Acrylate               | ·Good adhesion of glass and glass<br>·Good adhesion of glass and metal<br>·Good boiling water resistance<br>·Good low-high temperature resistance<br>·Tack free adhesive | ·UV bonding adhesive for glass and metal, glass and glass<br>·UV bonding adhesive for LCD PIN                               | 2             | Clear & Clean | 3               | 167                 | 10,000~15,000(60°C)     | 47.7    | 35D   | -                 | V    |
| DR-U050M1  | Aliphatic Urethane Acrylate              | ·Good hydrophilic performance<br>·Excellent anti-fog performance<br>·Fast curing speed   | ·UV anti-fog applications (Car-lamp, glasses et al.)<br>·UV Hydrophilic coating   | 2.5           | Clear & Clean | 2               | 5.1                 | 2,000~2,600             | 10.0    | -     | -                 | -    |
| DR-U052    | Aliphatic Urethane Acrylate              | ·Good anti-cracking<br>·Good hand sweat resistance<br>·Good yellowing resistance   | ·UV plastic coating<br>·UV VM topcoat   | 4             | Clear & Clean | 1               | -                   | 10,000~20,000           | -       | -     | -                 | -    |
| DR-U076    | Aliphatic Urethane Acrylate              | ·Good water resistance<br>·Good toughness<br>·Good yellowing resistance<br>·Good abrasion resistance   | ·UV plastic coating<br>·UV topcoat of vacuum metallization  | 6             | Clear & Clean | 1               | -                   | 60,000~80,000           | -       | -     | -                 | -    |
| DR-U079    | Aliphatic Urethane Diacrylate            | ·Good yellowing resistance<br>·Good toughness<br>·Good water resistance  | ·Coatings<br>·Inks<br>·Adhesives  | 2             | Clear & Clean | 1               | 30.4                | 150,000~200,000         | 42.8    | 73A   | -                 | -    |
| DR-U084    | Aliphatic Urethane Acrylate              | ·Dual-curable (UV+cationic curing)<br>·Good bonding adhesion<br>·Excellent toughness   | ·UV bonding adhesive of low surface energy substrates (LCP)<br>·UV bonding adhesive of plastic to glass, plastic to plastic | 2             | Clear & clean | 1               | 598                 | 22,000~32,000(60°C)     | -       | 80A   | -                 | -    |
| DR-U092    | Modified Solvent Based Urethane Acrylate | ·Good wetting<br>·Good flexibility<br>·Good rework adhesion<br>·Good yellowing resistance  | ·UV plastic coating<br>·Coats of UV vacuum metallization  | -             | Clear & Clean | 1               | -                   | 1,800~3,000             | 70.4    | 86A   | -                 | V    |
| DR-U092-TF | Modified Solvent Based Urethane Acrylate | ·Good wetting<br>·Good flexibility<br>·Good adhesion for rework<br>·Good yellowing resistance  | ·Plastics varnishes<br>·Large area spraying for plastics  | -             | Clear & Clean | 1               | -                   | 700~1,500               | 70.4    | 86A   | -                 | V    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description   | Characteristics  | Applications  | Functionality | Appearance    | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|--|--|---|---------------|---------------|-----------------|---------------------|-------------------------|---------|-------|-------------------|------|
|           |  |  |   |               |               |                 |                     |                         |         |       | REACH             | TSCA |
| DR-U096   | Aliphatic Urethane Acrylate                                  | <ul style="list-style-type: none"> <li>·Good curing speed</li> <li>·Good toughness</li> <li>·Good high-temperature high-humidity resistance</li> <li>·UV-and thermal-curing behaviors of dual-curable adhesives</li> </ul>                     | <ul style="list-style-type: none"> <li>·UV varnish for leather and TPU</li> <li>·UV adhesive for FPC reinforce</li> </ul>   | 2             | Clear & Clean | 1               | 126.0               | 7,000~13,000(60°C)      | 23.5    | 51D   | -                 | -    |
| DR-U104   | Aliphatic Urethane Acrylate                                  | <ul style="list-style-type: none"> <li>·UV topcoat application for vacuum metallization</li> <li>·UV plastic coating</li> <li>·UV wood coating</li> </ul>  | <ul style="list-style-type: none"> <li>·UV topcoat application for vacuum metallization</li> <li>·UV plastic coating</li> <li>·UV wood coating</li> </ul>   | 9             | Clean & Clear | 1               | -                   | 9,000~14,000 (60°C)     | -       | -     | -                 | -    |
| DR-U128   | Aliphatic Urethane Acrylate                                  | <ul style="list-style-type: none"> <li>·Good adhesion for metal/metal and glass/glass</li> <li>·Good water resistance</li> <li>·Good thermal shock resistance</li> </ul>   | <ul style="list-style-type: none"> <li>·UV curing adhesive for metal/metal and glass/glass</li> </ul>   | 2             | Clear & clean | 1               | 180                 | 15,000~20,000 (60°C)    | -       | 55D   | R                 | -    |
| DR-U160   | Aliphatic Urethane Hexaacrylate                              | <ul style="list-style-type: none"> <li>·Good adhesion</li> <li>·Good hardness</li> <li>·Good scratch resistance</li> </ul>   | <ul style="list-style-type: none"> <li>·UV wood coating</li> <li>·UV PVC coating</li> </ul>   | 3~6           | Clear & Clean | 1               | -                   | -                       | -       | -     | -                 | V    |
| DR-U161   | Aliphatic Urethane Hexaacrylate                              | <ul style="list-style-type: none"> <li>·Low viscosity</li> <li>·Good curing speed</li> <li>·Good flexibility</li> <li>·Good adhesion</li> </ul>  | <ul style="list-style-type: none"> <li>·UV inkjet inks</li> <li>·UV plastic coatings</li> <li>·UV overprint varnish</li> <li>·UV inks</li> <li>·UV wood coatings</li> </ul>   | 2             | Clear & Clean | 0.5             | -                   | 1,500~2,200             | -6      | -     | -                 | -    |
| DR-U168   | Aliphatic Urethane Hexaacrylate                              | <ul style="list-style-type: none"> <li>·Good adhesion on plastic substrates</li> <li>·Fast curing speed</li> <li>·Excellent flexibility</li> <li>·Good boiling water resistance</li> </ul>   | <ul style="list-style-type: none"> <li>·UV VM primer</li> <li>·UV adhesives</li> </ul>  | 2             | Clear & Clean | 1               | 108.7               | 45,000~65,000(60°C)     | -47.6   | -     | -                 | -    |
| DR-U187   | Silicone Modified Polyurethane Acrylate                      | <ul style="list-style-type: none"> <li>·Excellent anti-graffiti</li> <li>·Water and oil repellency</li> <li>·Excellent abrasion resistance</li> <li>·Good resistance to cracking</li> </ul>  | <ul style="list-style-type: none"> <li>·For UV curing system of wear-resistant and stain-resistant requirement, especially for plastic coating, PET thin films.</li> <li>·For hardcoating to improve the smooth and hardness of the surface.</li> </ul> | 6~8           | Slight haze   | 1               | <5                  | 1,000~3,000             | -       | 77    | -                 | -    |
| DR-U187B  | Silicone Modified Polyurethane Acrylate, Diluted in 40% HDDA | <ul style="list-style-type: none"> <li>·Excellent anti-graffiti</li> <li>·Water and oil repellency</li> <li>·Excellent abrasion resistance</li> </ul>  | <ul style="list-style-type: none"> <li>·For UV curing system of wear-resistant and stain-resistant requirement, especially for plastic coating, PET thin films.</li> <li>·For hardcoating to improve the smooth and hardness of the surface.</li> </ul> | 6~8           | Slight haze   | 1               | <5                  | 1,000~3,000             | 67      | 77    | R                 | -    |
| DR-U230   | Aliphatic Urethane acrylate                                  | <ul style="list-style-type: none"> <li>·Low shrinkage</li> <li>·Good hot stamping</li> <li>·Anti-scratch</li> <li>·Good adhesion on PE substrate</li> </ul>  | <ul style="list-style-type: none"> <li>·UV top-coating of PE tube</li> </ul>  | 2             | cloudy liquid | -               | -                   | 3,400~4,500             | -       | -     | -                 | -    |
| DR-U240   | Aliphatic Urethane Acrylate                                  | <ul style="list-style-type: none"> <li>·Fast curing speed</li> <li>·Good flexibility</li> <li>·High chemical resistance</li> <li>·Good tooled in gold</li> </ul>   | <ul style="list-style-type: none"> <li>·UV wood and plastic coatings</li> <li>·UV PE tube coatings</li> <li>·UV nail polish</li> </ul>  | 2             | Clear & Clean | 2               | 5.0                 | 1,800~2,200(60°C)       | 62.9    | -     | -                 | V    |
| DR-U241   | Aliphatic Urethane Acrylate                                  | <ul style="list-style-type: none"> <li>·High transmittance, low haze</li> <li>·Good yellowing resistance</li> <li>·Good HTHH resistance(85°C/85%Rh/1000hr)</li> <li>·Good toughness</li> <li>·Supporting layer of multi-layer UVOCA</li> </ul> | <ul style="list-style-type: none"> <li>·UV optical clear adhesive of mobile phone, touch panel, automotive panel</li> </ul>   | 2             | Clear & clean | 1               | 240                 | 5,000~8,000(60°C)       | -19.0   | 39D   | -                 | -    |
| DR-U249   | Aliphatic Urethane Acrylate                                  | <ul style="list-style-type: none"> <li>·Good adhesion of low surface energy substrates</li> <li>·Good high-temperature high-humidity (HTHH) resistance</li> <li>·Good bonding retention after HTHH aging</li> </ul>                            | <ul style="list-style-type: none"> <li>·UV bonding adhesive of PI (Polyimide) and PA(Polyamide) substrate</li> <li>·UV reinforce adhesive for FPC to glass</li> </ul>   | 2             | Clear & Clean | 1               | 431.0               | 20,000~30,000(60°C)     | -17.7   | 41A   | -                 | -    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                             | Characteristics  | Applications   | Functionality | Appearance           | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C)  | Shore | Regulatory Status |      |
|-----------|--|--|--|---------------|----------------------|-----------------|---------------------|-------------------------|----------|-------|-------------------|------|
|           |  |  |  |               |                      |                 |                     |                         |          |       | REACH             | TSCA |
| DR-U250   | Aliphatic Urethane Acrylate                      | · Good flexibility<br>· Good soft-touch feeling<br>· Good yellowing resistance<br>· Low viscosity  | · UV Soft-touched Coatings   | 2             | Haze                 | -               | 8.9                 | 100~400cps              | -3.9     | 62A   | -                 | V    |
| DR-U252   | Aliphatic Urethane Acrylate                      | · Disperse medium for quantum dots (QD)<br>· High transmittance, low haze<br>· Good yellowing resistance<br>· Good HTHH resistance(85°C/85%Rh/500hr)                         | · UV adhesive of QD film<br>· UV optical clear adhesive of mobile phone, touch panel, automotive panel   | 0             | Clear & clean        | 1               | 53                  | 8,000~16,000(60°C)      | -38.7    | -     | -                 | -    |
| DR-U265   | Aliphatic Urethane acrylate Diluted in 25% TPGDA | · Excellent flexibility<br>· Good abrasion resistance<br>· Excellent yellowing resistance  | · UV wood coating<br>· UV plastic coating  | 3             | Clean & Clear        | 2               | -                   | 27,500~42,500           | -        | -     | -                 | -    |
| DR-U268   | Aliphatic Urethane acrylate Diluted in 17% TPGDA | · High hardness<br>· Fast curing speed<br>· Good abrasion resistance   | · UV Plastic coatings<br>· UV Nail polish<br>· UV Wood coatings  | 3             | Clean & Clear liquid | 2               | 4.1                 | 11,500~14,500(60°C)     | 96.5     | -     | -                 | -    |
| DR-U277   | Aliphatic Urethane Acrylate                      | · Dual-curable (UV+moisture curing)<br>· Good bonding adhesion<br>· NCO content 1~1.5%<br>· Tack-free time 72hr  | · UV bonding adhesive of plastic to glass, plastic to plastic<br>· UV adhesive for electronic components   | 2             | Clear & clean        | 1               | 230                 | 1,800~3,500(60°C)       | -        | 30A   | -                 | -    |
| DR-U281   | Aliphatic Urethane Acrylate                      | · Good flexibility<br>· Good adhesion<br>· High elongation<br>· Good hardness  | · UV curing adhesive for FPC, FPC/glass and plastic/glass  | 2             | Clear & clean        | 1               | 340                 | 18,000~25,000 (60°C)    | 60 (DSC) | 35D   | -                 | -    |
| DR-U282   | Aliphatic Urethane Acrylate                      | · Tack free adhesive<br>· Good toughness<br>· Good adhesion of FPC and glass<br>· Good adhesion of plated metal(Nickel, Tin)   | · UV adhesive for FPC reinforce<br>· UV bonding adhesive for battery case  | 2             | Yellowish            | 1               | 228.0               | 6,600~7,300(60°C)       | 83.7     | 50D   | -                 | -    |
| DR-U294   | Aliphatic Urethane Acrylate                      | · High elongation<br>· Good adhesion<br>· Good high temperature and humidity resistance  | · UV curing adhesive for plastic/plastic, plastic/glass and plastic/metal  | 2             | Clear & clean        | 1               | 685                 | 25,000~30,000 (60°C)    | -10      | 65A   | -                 | -    |
| DR-U299   | Aliphatic Urethane Acrylate                      | · Extra high breaking elongation<br>· Good yellowing resistance<br>· Good bonding adhesion<br>· Good bonding retention after HTHH aging                                      | · UV bonding adhesive of optical films (TAC, PVA, COP, PMMA)<br>· UV bonding adhesive of low surface energy substrates (PP, PS, PE)<br>· UV bonding adhesive of glass to glass, glass to metal | 2             | Clear & Clean        | 1               | 475                 | 25,000~35,000(60°C)     | -20.3    | 37A   | -                 | -    |
| DR-U301   | Aliphatic Urethane Acrylate                      | · Good water resistance<br>· Good yellowing resistance<br>· Good toughness   | · UV bonding adhesive for glass, plastic<br>· Gel nail   | 2             | Clear & Clean        | 1               | 140.0               | 25,000~35,000(60°C)     | 3.5      | -     | -                 | -    |
| DR-U311   | Aliphatic Urethane Acrylate                      | · Good adhesion of glass and glass<br>· Good boiling water resistance<br>· Good thermal shock  | · UV bonding adhesive for glass and glass  | 2             | Clear & Clean        | 1               | 196.0               | 12,000~22,000(60°C)     | 13.7     | -     | -                 | V    |
| DR-U312   | Aliphatic Urethane Acrylate                      | · Excellent flexibility<br>· Excellent yellowing resistance<br>· Good curing speed   | · UV PVC coatings  | 2             | Slight haze          | -               | 30.2                | 900~1,600(60°C)         | -        | -     | -                 | -    |
| DR-U315   | Aliphatic Urethane Acrylate                      | · Excellent acid resistance, alkali chemical resistance<br>· Good heat resistance (180 °C /3hr)<br>· Excellent resistant to laser engraving, sandblasting and anodic process | · UV-strip mask for ITO-glass, cover lens<br>· UV-strip mask for metal back-cover of notebook and mobile phone   | 2             | Slight haze          | -               | 585                 | 13,000~20,000(60°C)     | -4.3     | 30A   | -                 | -    |
| DR-U317   | Aliphatic Urethane Acrylate                      | · Excellent flexibility<br>· Good yellowing resistance<br>· Good hydrophilic performance   | · UV nail polish<br>· UV lamp and glassess in anti-fog field   | 2             | Clear & Clean        | -               | 11.2                | 1,500~2,400(60°C)       | 26.4     | -     | R                 | -    |

**URETHANE  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description        | Characteristics   | Applications   | Functionality | Appearance                   | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|-----------------------------|---|--|---------------|------------------------------|-----------------|---------------------|-------------------------|---------|-------|-------------------|------|
|           |                             |   |  |               |                              |                 |                     |                         |         |       | REACH             | TSCA |
| DR-U319   | Aliphatic Urethane Acrylate | ·Good hydrophilic performance<br>·Excellent flexibility<br>·Excellent anti-fog performance  | ·UV anti-fog applications (Car-lamp, glasses et al.)<br>·UV hydrophilic coating  | 2             | Solid                        | -               | 36.2                | 1,800~2,800(60°C)       | 20.9    | -     | R                 | -    |
| DR-U327   | Aliphatic Urethane Acrylate | ·Low odor<br>·Good adhesion<br>·Good toughness<br>·Non-residual glue after peeling off  | ·UV curable adhesive<br>·Phototherapy nail polish  | 2             | clean/clear                  | 1               | 210                 | 9,000~12,000            | -23.2   | 38A   | -                 | -    |
| DR-U330   | Aliphatic Urethane Acrylate | ·Good flexibility<br>·Excellent elongation<br>·Excellent adhesion   | ·UV adhesive   | 2             | Clear & Clean or Slight haze | 1               | 79.5                | 14,000-22,000           | 100.0   | 42    | -                 | V    |
| DR-U331   | Aliphatic Urethane Acrylate | ·High transmittance, low haze<br>·Good yellowing resistance<br>·Good HTHH resistance(85°C/85%Rh/1000hr)   | ·UV optical clear adhesive of mobile phone, touch panel, automotive panel  | 2             | Clear & clean                | 1               | 153                 | 10,000~20,000(60°C)     | -       | -     | -                 | -    |
| DR-U356   | Aliphatic Urethane Acrylate | ·Fast curing speed<br>·Excellent toughness<br>·High gloss   | ·UV plastic coatings<br>·UV PVC floor coatings<br>·PVC thermoforming coatings<br>·Phototherapy nail polish                                       | 2             | Clear & Clean                | 1               | 39.6                | 4,500~7,500(60°C)       | 32.3    | 55D   | -                 | V    |
| DR-U360D  | Aliphatic Urethane Acrylate | ·Fast curing<br>·Good matting powder dispersion<br>·Easy-to-matte<br>·High hardness and good scratch resistance   | ·UV wood topcoat<br>·UV plastic topcoat<br>·UV film coating  | 9             | Clear & Clean                | 1               | -                   | 2,000~2,600(60°C)       | -       | -     | R                 | -    |
| DR-U361-1 | Aliphatic Urethane Acrylate | ·High transmittance, low haze<br>·Good ink step filling<br>·Good yellowing resistance<br>·Good HTHH resistance (85°C /85% Rh/1000hr)                      | ·UV optical clear adhesive of mobile phone/industrial computer touch panel, automotive panel   | 2             | Clear & Clean                | 1               | 187                 | 20,000~30,000(60°C)     | -45.3   | 23C2  | -                 | -    |
| DR-U367-1 | Aliphatic Urethane Acrylate | ·High transmittance, low haze<br>·Low shrinkage<br>·Good yellowing resistance<br>·Good HTHH resistance (60°C /90% Rh/ 500hr)                              | ·UV optical clear adhesive (OCA,OCR)<br>·UV pressure sensitive adhesives   | 2             | Clear & Clean                | 50(APHA)        | 135.0               | 6,000~10,000(60°C)      | -44.5   | 26A   | -                 | -    |
| DR-U371   | Aliphatic Urethane Acrylate | ·Good adhesion of low surface energy substrates<br>·Good bonding adhesion after HTHH aging  | ·UV bonding adhesive of low surface energy substrates (LCP)<br>·UV bonding adhesive of plastic to glass, plastic to plastic                      | 2             | Clear & clean                | 1               | 290                 | 4,000~8,000(60°C)       | -       | 30A   | -                 | -    |
| DR-U372   | Aliphatic Urethane Acrylate | ·Good water resistance<br>·Good heat resistance<br>·Good yellowing resistance<br>·Excellent elongation  | ·Adhesives<br>·Screen inks<br>·Metal coatings  | 2             | Clear & Clean                | 1               | 403.9               | 70,000~100,000(60°C)    | -44.6   | -     | -                 | -    |
| DR-U379   | Aliphatic Urethane Acrylate | ·Good adhesion of low surface energy substrates<br>·Good high-temperature high-humidity (HTHH) resistance<br>·Good bonding retention after HTHH aging     | ·UV bonding adhesive of non-treated PET, PETG<br>·UV bonding adhesive of PET to glass  | 2             | Clear & Clean                | 1               | 153.0               | 4,000~9,000(60°C)       | -37.3   | 18A   | -                 | -    |
| DR-U384   | Aliphatic Urethane Acrylate | ·Extra high breaking elongation<br>·Good yellowing resistance<br>·Good bonding adhesion of hetero- substrates<br>·Good bonding retention after HTHH aging | ·UV bonding adhesive of optical films (TAC, PVA, PC)<br>·UV bonding adhesive of plastic to glass, glass to metal, plastic to plastic<br>·UV inks | 2             | Clear & Clean                | 100(APHA)       | 535                 | 18,000~25,000(60°C)     | -23     | 60A   | -                 | V    |
| DR-U386   | Aliphatic Urethane Acrylate | ·Extra high breaking elongation<br>·Good bonding adhesion of hetero-substrate<br>·Excellent toughness   | ·UV bonding adhesive for plastic, glass, metal   | 0             | Light red liquid             | 1               | 506                 | 28,000~38,000(60°C)     | -       | 45D   | -                 | -    |
| DR-U388   | Aliphatic Urethane Acrylate | ·Good bonding adhesion of polarizing films<br>·Good bonding adhesion of plastic substrates<br>·Good boiling water resistance                              | ·UV bonding adhesive of optical films (TAC-PC, TAC-TAC)<br>·UV bonding adhesive of plastic substrates  | 2             | Clear & Clean                | 1               | 373                 | 3,000~5,000(60°C)       | -25     | 35A   | -                 | -    |

**EPOXY  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                                      | Characteristics  | Applications   | Functionality | Appearance                | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C ) | Tg (°C ) | Shore | Regulatory Status |      |
|-----------|---|--|--|---------------|---------------------------|-----------------|----------------------|---------------------|--------------------------|----------|-------|-------------------|------|
|           |   |  |  |               |                           |                 |                      |                     |                          |          |       | REACH             | TSCA |
| 620-100   | 2-Hydroxy-3-Phenoxypropyl Acrylate                        | ·Improved flexibility<br>·Good adhesion  | ·Coatings<br>·UV inks<br>·UV adhesives   | 1             | Clear & Clean             | 1               | 1                    | 21.7                | 170~230                  | 14.0     | 71A   | -                 | V    |
| 6202      | Modified Epoxy Acrylate                                   | ·Good flexibility<br>·Good pigment wetting<br>·Good water balance  | ·UV offset ink   | 1.5           | Clear & Clean             | 1               | 1                    | -                   | 35,000~60,000            | -        | -     | -                 | V    |
| 621-100   | Epoxy Acrylate  | ·Light color<br>·Very high gloss<br>·Good UV/EB cure reactivity<br>·Good hardness and chemical resistance            | ·Overprint varnishes for paper and rigid plastics<br>·Wood varnishes<br>·Inks and metal decorating vehicles  | 2             | Clear & Clean             | 1               | 1                    | 2.8                 | 4,000~7,000(60°C )       | 90.1     | 88D   | R                 | V    |
| 621A-80   | Epoxy Acrylate Diluted in 20% TPGDA                       | ·Light color<br>·Very high gloss<br>·Good UV/EB cure reactivity<br>·Good hardness and chemical resistance            | ·Overprint varnishes for paper and rigid plastics<br>·Wood varnishes<br>·Inks and metal decorating vehicles  | 2             | Clear & Clean             | 1               | 1                    | 2.0                 | 28,500~40,000            | 90.4     | 84D   | R                 | V    |
| 621C-60   | Epoxy Acrylate Diluted in 40% TMPTA                       | ·Light color<br>·Good UV/EB cure reactivity<br>·High gloss<br>·Good chemical resistance                              | ·Overprint varnish for paper and rigid plastics<br>·Wood varnishes<br>·Inks and metal decorating vehicles  | 2             | Clear & Clean             | 1               | 1                    | -                   | 10,000~13,000            | -        | -     | R                 | V    |
| 621F-80   | Epoxy Acrylate Diluted in 20% DPGDA                       | ·Light color<br>·Good UV/EB cure reactivity<br>·High gloss<br>·Good chemical resistance                              | ·Overprint varnish for paper and rigid plastics<br>·Wood varnishes<br>·Inks and metal decorating vehicles  | 2             | Clear & Clean             | 1               | 1                    | -                   | 15,000~35,000            | -        | -     | R                 | V    |
| 621G-80   | Epoxy Acrylate Diluted in 20% G3.5POTA                    | ·Light color<br>·Good UV/EB cure reactivity<br>·High gloss<br>·Good chemical resistance                              | ·Overprint varnish for paper and rigid plastics<br>·Wood varnishes<br>·Inks and metal decorating vehicles  | 2             | Clear & Clean             | 1               | 1                    | -                   | 85,000~110,000           | -        | -     | R                 | V    |
| 6210G     | Modified Epoxy Acrylate                                   | ·Low viscosity<br>·Good UV/EB cure reactivity<br>·High gloss<br>·Good surface hardness<br>·Good solvent resistance   | ·UV overprinting varnishes<br>·Wood varnishes<br>·Coatings for paper and plastics<br>·Lithographic and screen ink vehicles<br>·Metal decorating vehicles | 2             | Clear & Clean             | 1               | 1                    | 4.8                 | 30,000~35,000            | 80.2     | 86D   | -                 | V    |
| 6215-100  | Modified Epoxy Acrylate                                   | ·Light color<br>·Good UV/EB cure reactivity<br>·Low film shrinkage<br>·Good flexibility and toughness                | ·UV overprinting varnishes<br>·UV coating for paper & plastics<br>·UV wood varnishes<br>·UV ink  | 2             | Yellowish, Viscous liquid | 2               | 5                    | 22.3                | 5,000~6,200(60°C )       | 29.0     | 90A   | -                 | V    |
| 62158     | Modified Epoxy Acrylate                                   | ·UV-LED Accelerator<br>·Reduce thiol added<br>·Fast curing speed<br>·High gloss                                      | ·Phototherapy nail polish<br>·LED curing coating   | 2             | Yellowish                 | 2               | 2                    | 6.3                 | 10,000~30,000            | 40.55    | 73D   | -                 | -    |
| 6219-100  | Epoxy Methacrylate  | ·Light color<br>·Good UV/EB cure reactivity<br>·Very high gloss<br>·Good toughness and abrasion resistance           | ·UV overprinting varnishes<br>·Coating for paper & plastics<br>·Wood varnishes<br>·Lithographic & screen ink vehicles<br>·Metal decorating vehicles      | 2             | Clear & Clean             | 1               | 1.5                  | 0.9                 | 3,000~6,000(60°C )       | 82.9     | 90D   | -                 | V    |
| 622-100   | Fatty Acid Modified Epoxy Acrylate                        | ·Good wetting, flow and leveling effect<br>·Improved flexibility   | ·Coating for paper and wood<br>·Ink<br>·Metal decorating vehicles  | 1.9           | Clear & Clean             | 1               | 1                    | 3.9                 | 3,000~5,500(60°C )       | 53.0     | 84D   | -                 | V    |
| 622A-80   | Fatty Acid Modified Epoxy Acrylate, Diluted in 20% TPGDA  | ·Low odor<br>·Good wetting, flow and leveling effect<br>·Improved flexibility  | ·Coating for paper and wood<br>·Ink<br>·Metal decorating vehicles  | 1.9           | Clear & Clean             | 1               | 1                    | 9.0                 | 18,000~25,000            | 48.0     | 86D   | -                 | V    |
| 623-100   | Modified Bisphenol A Epoxy Acrylate                       | ·Provide improved flexibility and toughness without sacrificing cure speed<br>·Good abrasion and chemical resistance | ·Overprint varnishes, clear coatings for paper, wood and metal<br>·Lithographic inks   | 2             | Clear & Clean             | 2               | 3                    | 12.7                | 4,000~5,500(60°C )       | 33.5     | 88D   | R                 | V    |
| 623A-80   | Modified Bisphenol A Epoxy Acrylate, Diluted in 20% TPGDA | ·Provide improved flexibility and toughness without sacrificing cure speed<br>·Good abrasion and chemical resistance | ·Overprint varnishes, clear coatings for paper, wood and metal<br>·Lithographic inks   | 2             | Clear & Clean             | 2               | 3                    | 6.2                 | 25,000~33,000            | 51.7     | 85D   | R                 | V    |



**EPOXY  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                           | Characteristics   | Applications  | Functionality | Appearance    | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|--|---|---|---------------|---------------|-----------------|----------------------|---------------------|-------------------------|---------|-------|-------------------|------|
|           |  |   |   |               |               |                 |                      |                     |                         |         |       | REACH             | TSCA |
| 6235      | Modified Epoxy Acrylate                        | <ul style="list-style-type: none"> <li>Good flexibility</li> <li>Toughness</li> <li>Excellent adhesion on wood</li> <li>Good chemical resistance</li> </ul>                   | <ul style="list-style-type: none"> <li>Wood sealer and topcoat</li> <li>Plastic coatings</li> </ul>   | 2             | Clear & Clean | 2               | 3                    | -                   | 900~1,400(60°C)         | -       | -     | -                 | V    |
| 6240      | Epoxy Acrylate                                 | <ul style="list-style-type: none"> <li>Fast curing speed</li> <li>Excellent sanding</li> </ul>  | <ul style="list-style-type: none"> <li>UV wood primer</li> </ul>  | 2             | Clear & Clean | 1               | 1.5                  | 5.0                 | 30,000~55,000           | 52.9    | -     | -                 | V    |
| 625C-45   | Novolac Epoxy Acrylate, Diluted in 55% TMPTA   | <ul style="list-style-type: none"> <li>Extremely high surface hardness</li> <li>Good thermal resistance properties</li> <li>Excellent chemical resistance</li> </ul>          | <ul style="list-style-type: none"> <li>Electronics : solder masks</li> <li>Screen inks</li> </ul>   | 3~4           | Clear & Clean | 1               | 3                    | 2.3                 | 5,000~9,000             | 87.8    | 84D   | -                 | V    |
| 6250      | Epoxy Acrylate Diluted in 15% TMPTA            | <ul style="list-style-type: none"> <li>Higher pencil hardness</li> <li>Good MEK resistance</li> <li>Excellent sanding</li> </ul>  | <ul style="list-style-type: none"> <li>UV wood primer</li> <li>UV paper OPV</li> </ul>  | 2             | Clear & Clean | 1               | 1                    | 5.0                 | 10,000~30,000           | 52.3    | 85D   | -                 | V    |
| 6255      | Modified Epoxy Acrylate                        | <ul style="list-style-type: none"> <li>High curing speed</li> <li>Good sanding ability</li> <li>Good hardness and chemical resistance</li> </ul>                              | <ul style="list-style-type: none"> <li>UV wood sanding bottom coatings</li> </ul>   | 2             | Clear & Clean | 1               | 1                    | 5.0                 | 20,000~40,000           | -       | -     | -                 | -    |
| 6260      | Modified Epoxy Acrylate                        | <ul style="list-style-type: none"> <li>Low viscosity</li> <li>High curing speed</li> </ul>  | <ul style="list-style-type: none"> <li>UV coating for wood</li> </ul>   | 1             | Clear & Clean | 1               | 1.8                  | -                   | 60~90                   | 22.8    | -     | -                 | -    |
| 6261      | Epoxidised Soya Bean Oil Acrylate              | <ul style="list-style-type: none"> <li>Fast curing speed</li> <li>Good flexibility</li> <li>Good pigment wetting</li> </ul>   | <ul style="list-style-type: none"> <li>UV overprinting varnishes</li> <li>Coatings for paper &amp; plastics</li> <li>Wood varnishes</li> <li>Lithographic &amp; screen ink vehicles</li> <li>Metal decorating vehicles</li> </ul> | 3             | Clear & Clean | 10              | 12                   | 10.1                | 25,000~38,000           | 14.3    | 62D   | R                 | V    |
| 6261LA    | Epoxidised soy bean oil acrylate               | <ul style="list-style-type: none"> <li>Good adhesion</li> <li>Good pigment wetting</li> <li>Good flexibility</li> </ul>   | <ul style="list-style-type: none"> <li>UV. Wood finishes</li> <li>UV. Ink</li> <li>UV Plastics coating</li> </ul>   | 3             | Clear & Clean | 6               | 6                    | 5.7                 | 20,000~35,000           | —       | 60D   | R                 | V    |
| 6261M     | Epoxidised Soya Bean Oil Acrylate              | <ul style="list-style-type: none"> <li>Good flexibility</li> <li>Good adhesion</li> <li>Good pigment wetting</li> </ul>   | <ul style="list-style-type: none"> <li>UV overprinting varnishes</li> <li>UV ink</li> <li>UV wood varnishes</li> <li>UV plastics coating</li> </ul>   | 3             | Clear & Clean | 6               | 12                   | -                   | 28,000~47,000           | -       | -     | R                 | V    |
| 6270      | Modified Epoxy Acrylate                        | <ul style="list-style-type: none"> <li>UV and cationic dual cure performance</li> <li>Good UV cure reactive</li> <li>Good high temperature and humidity resistance</li> </ul> | <ul style="list-style-type: none"> <li>PI substrates bonding adhesive</li> <li>UV reinforcing adhesive for FT-LCD/ OLED displays</li> <li>UV reinforcing adhesive for flexible flat cable (FFC)</li> </ul>                        | 1             | Light green   | 2               | 1                    | 3                   | 1,000~1,500             | 58      | 82D   | -                 | -    |
| 6278      | Modified Epoxy Acrylate                        | <ul style="list-style-type: none"> <li>UV and cationic dual cure performance</li> <li>Good UV cure reactive</li> <li>Good high temperature and humidity resistance</li> </ul> | <ul style="list-style-type: none"> <li>PI substrates bonding adhesive</li> <li>UV reinforcing adhesive for FT-LCD/ OLED displays</li> <li>UV reinforcing adhesive for flexible flat cable (FFC)</li> </ul>                        | 2             | Light green   | 2               | 1                    | 2                   | 20,000~25,000           | 58      | 80D   | -                 | -    |
| 628A-70   | Modified Epoxy Diacrylate Diluted in 30% TPGDA | <ul style="list-style-type: none"> <li>High hardness</li> <li>Fast curing</li> <li>Good chemical resistance</li> </ul>  | <ul style="list-style-type: none"> <li>UV Wood Coatings</li> <li>UV Plastic Coating</li> <li>UV paper varnish</li> </ul>  | 2             | Clean/Clear   | 1               | 1                    | 5                   | 50,000~65,000           | -       | -     | -                 | -    |

## EPOXY ACRYLATE OLIGOMERS

### Typical Physical & Chemical Properties

| ETERCURE® | Chemical Description         | Characteristics   | Applications   | Functionality | Appearance    | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|------------------------------|---|--|---------------|---------------|-----------------|----------------------|---------------------|-------------------------|---------|-------|-------------------|------|
|           |                              |   |  |               |               |                 |                      |                     |                         |         |       | REACH             | TSCA |
| DR-G901A  | Hyperbranched Epoxy Acrylate | <ul style="list-style-type: none"> <li>Good gloss</li> <li>Good flexibility</li> <li>Fast curing speed</li> </ul>                     | <ul style="list-style-type: none"> <li>UV explosion-proof and folding resistant OPV</li> <li>DVD glue</li> </ul> | 4             | Clean/Clear   | 1               | 5                    | 5                   | 20,000~40,000           | -       | -     | -                 | -    |
| DR-G915   | Modified Epoxy Acrylate      | <ul style="list-style-type: none"> <li>High refractive index</li> <li>High Tg</li> <li>Good adhesion on PET film</li> </ul>           | <ul style="list-style-type: none"> <li>UV curable coating</li> </ul>   | 2             | Clear & Clean | 1               | -                    | -                   | 700~1,300(60°C)         | -       | -     | -                 | V    |
| DR-G961   | Modified Epoxy Acrylate      | <ul style="list-style-type: none"> <li>Good yellowing resistance</li> <li>Good toughness</li> <li>Great dispersion of TiO2</li> </ul> | <ul style="list-style-type: none"> <li>Wood flow-coatings</li> <li>Plastic coatings</li> </ul>                   | 2             | Clear & Clean | 2               | 5                    | 5.0                 | 25,000~50,000           | -       | -     | -                 | -    |

## POLYESTER ACRYLATE OLIGOMERS

### Typical Physical & Chemical Properties

| ETERCURE® | Chemical Description                             | Characteristics  | Applications  | Functionality | Appearance    | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|--|--|---|---------------|---------------|-----------------|----------------------|---------------------|-------------------------|---------|-------|-------------------|------|
|           |  |  |   |               |               |                 |                      |                     |                         |         |       | REACH             | TSCA |
| 6311-100  | Fatty Acid Modified Polyester Hexaacrylate       | <ul style="list-style-type: none"> <li>Fast curing speed</li> <li>Good pigment wetting</li> <li>Good lithographic behavior</li> <li>Good abrasion resistance</li> <li>Good solvent resistance</li> </ul> | <ul style="list-style-type: none"> <li>Fast curing lithographic inks and clear varnishes</li> <li>UV offset and flexo inks</li> </ul>   | 6             | High viscous  | dark            | 12                   | 3.0                 | 4,000~8,000             | 42.3    | 95A   | R                 | V    |
| 6312-100  | Fatty Acid Modified Polyester Hexaacrylate       | <ul style="list-style-type: none"> <li>Fast curing speed</li> <li>Good pigment wetting</li> <li>Good lithographic behavior</li> <li>Good abrasion resistance</li> <li>Good solvent resistance</li> </ul> | <ul style="list-style-type: none"> <li>UV offset inks</li> </ul>  | 6             | High viscous  | dark            | 20                   | 3.2                 | 20,000 ~ 50,000         | 59.8    | 86A   | R                 | V    |
| 6313-100  | Fatty Acid Modified Polyester Acrylate           | <ul style="list-style-type: none"> <li>Low irritancy</li> <li>Good pigment wetting</li> <li>Outstanding lithographic behavior</li> </ul>   | <ul style="list-style-type: none"> <li>UV offset inks</li> </ul>  | 4             | High viscous  | dark            | 20                   | 1.8                 | 100,000~150,000         | 83.1    | 91A   | -                 | V    |
| 6314C-55  | Chlorinated Polyester Resin Diluted in 45% TMPTA | <ul style="list-style-type: none"> <li>Good adhesion</li> <li>Good flexibility</li> <li>Good pigment wetting</li> </ul>  | <ul style="list-style-type: none"> <li>UV lithographic ink</li> <li>UV coatings for metal, plastic and paper</li> </ul>   | 1.2           | Clear & Clean | 1.5             | 25                   | -                   | 45,000~65,000           | -       | -     | R                 | V    |
| 6314C-60  | Chlorinated Polyester Resin Diluted in 40% TMPTA | <ul style="list-style-type: none"> <li>Good adhesion</li> <li>Good pigment wetting</li> <li>Fast curing speed</li> </ul>   | <ul style="list-style-type: none"> <li>Inks and coatings for metal, plastic and paper</li> </ul>  | -             | High viscous  | 1.5             | 25                   | 1.6                 | 100,000~150,000         | 50.3    | 85D   | R                 | V    |
| 6314C-60L | Chlorinated Polyester Resin Diluted in 40% TMPTA | <ul style="list-style-type: none"> <li>Good adhesion</li> <li>Good pigment wetting</li> <li>Fast curing speed</li> </ul>   | <ul style="list-style-type: none"> <li>Inks and coatings for metal, plastic and paper</li> </ul>  | -             | High viscous  | 1.5             | 25                   | 2.2                 | 60,000~90,000           | 48.6    | 93A   | R                 | V    |
| 6315      | Modified Polyester Acrylate                      | <ul style="list-style-type: none"> <li>Lower viscosity</li> <li>High gloss</li> <li>Good UV/EB cure reactivity</li> <li>Good scratch resistant and toughness</li> <li>Good solvent resistance</li> </ul> | <ul style="list-style-type: none"> <li>Overprint varnish for paper &amp; board</li> <li>Wood varnishes</li> <li>Coating for plastics</li> <li>Lithographic and screen ink vehicles</li> </ul> | -             | Clear & Clean | 2               | -                    | 7.3                 | 15,000~25,000           | 44.8    | 81D   | -                 | V    |
| 63158     | Polyester Acrylate                               | <ul style="list-style-type: none"> <li>Good adhesion to VM layer</li> <li>Good heat resistance</li> <li>Good fullness</li> </ul>   | <ul style="list-style-type: none"> <li>UV V.M. primer</li> </ul>  | 2             | Clear & Clean | 2               | <3                   | 6.1                 | 10,000~15,000(60°C)     | 74.2    | 89D   | -                 | -    |

**POLYESTER  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                       | Characteristics   | Applications  | Functionality | Appearance          | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C ) | Tg (°C ) | Shore | Regulatory Status |      |
|-----------|--|---|---|---------------|---------------------|-----------------|----------------------|---------------------|--------------------------|----------|-------|-------------------|------|
|           |  |   |   |               |                     |                 |                      |                     |                          |          |       | REACH             | TSCA |
| 6316      | Modified Polyester Acrylate                | ·Good hardness<br>·Good adhesion<br>·Good yellowing resistance  | ·Overprint varnish for paper & board<br>·Coating for plastics   | -             | Clear & Clean       | 1               | -                    | 31.1                | 12,000~25,000            | 24.3     | 87D   | R                 | V    |
| 63161     | Fatty Acid Modified Polyester Hexaacrylate | ·Low viscosity<br>·Good pigment wetting   | ·Overprint varnish for paper<br>·UV. Inks   | 6             | Brown liquid        | Dark            | <12                  | <5                  | 4,000~8,000              | -        | -     | R                 | V    |
| 6319      | Modified Polyester Acrylate                | ·Good UV/EB cure reactivity<br>·Good scratch resistant and toughness<br>·Good solvent resistance                                    | ·Overprint varnish for paper & board<br>·Wood varnishes<br>·Coating for plastics  | -             | Clear & Clean       | 2               | -                    | 29.4                | 18,000~24,000            | 16.6     | 81D   | -                 | V    |
| 6319-1    | Modified Polyester Acrylate                | ·Good UV/EB cure reactivity<br>·Good scratch resistant and toughness<br>·Good solvent resistance                                    | ·Overprint varnish for paper & board<br>·Wood varnishes<br>·Coating for plastics  | -             | Clear & Clean       | 2               | -                    | -                   | 8,000~14,000             | -        | -     | -                 | V    |
| 63194     | Chlorinated Polyester Resin                | ·Good adhesion<br>·Good pigment wetting<br>·Good curing speed   | ·UV inks  | -             | Clear & Clean       | 3 max.          | 10 max.              | -                   | 1,500~2,500(60°C)        | -        | -     | R                 | -    |
| 63195     | Polyester Acrylate                         | ·Good steam resistance<br>·Good impact resistant<br>·Good pigment wetting (YMCK)<br>·Good curing speed                              | ·UV can coating   | 3             | Light yellow liquid | 6 max.          | -                    | -                   | 2,000~5,000 (60°C)       | -        | -     | -                 | -    |
| 6320      | Polyester Tetraacrylate                    | ·Lower viscosity<br>·High gloss<br>·Good UV/EB cure reactivity<br>·Good scratch resistant and toughness<br>·Good solvent resistance | ·Overprint varnish for paper & board<br>·Wood varnishes<br>·Coating for plastics<br>·Lithographic and screen ink vehicles | 4             | Clear & Clean       | 2               | 20                   | 6.2                 | 300~500                  | 43.4     | 95A   | -                 | V    |
| 6321-100  | Polyester Tetraacrylate                    | ·High gloss<br>·Good UV/EB cure reactivity<br>·Good scratch resistance<br>·Good solvent resistance                                  | ·Overprint varnish for paper & board<br>·Wood varnishes<br>·Coating for plastics<br>·Lithographic and screen ink vehicles | 4             | Clear & Clean       | 1               | 2                    | -                   | 40,000~55,000            | 82.8     | 93A   | R                 | V    |
| 6328      | Amine Modified Polyester Acrylate          | ·Low viscosity<br>·Low odor<br>·Fast curing speed   | ·Overprint varnish for paper & board<br>·UV. inks<br>·UV. wood coating  | -             | Clear & Clean       | 2               | -                    | -                   | 200~300                  | -        | -     | -                 | -    |
| 6333-100  | Polyester Acrylate                         | ·Low odor<br>·Low viscosity<br>·Good flexibility  | ·UV varnish for plastic (PMMA, PC and ABS)<br>·UV flexo inks<br>·Wood coating<br>·Ink-jet                                 | 2             | Clear & Clean       | 2               | 1.0                  | 26.1                | 100~300                  | 23.1     | 94A   | -                 | V    |
| 6340N     | Polyester Acrylate                         | ·Good adhesion<br>·Good toughness<br>·Good pigment wetting  | ·Inks and coatings for metal, plastic and paper   | 3             | Clear & Clean       | 3               | 10                   | -                   | 6,500~7,500(60°C )       | -        | -     | -                 | V    |
| 6342      | Modified Polyester Acrylate                | ·Low viscosity<br>·Good flexibility<br>·Good adhesion<br>·Good solvent resistance   | ·Wood varnishes<br>·Coating for plastics<br>·Lithographic and screen ink vehicles   | -             | Clear & Clean       | 2               | -                    | 7.0                 | 2,000~5,000              | 12.0     | 85D   | -                 | V    |
| 63421     | Polyester Acrylate                         | ·Low viscosity<br>·Good curing speed<br>·Good flexibility<br>·Good adhesion   | ·UV wood coatings<br>·UV overprint varnish<br>·UV inks<br>·UV fiber coatings<br>·UV plastic coatings                      | 2             | Clear & Clean       | 80 (APHA)       | 0.5                  | 18                  | 110~150                  | -        | -     | -                 | -    |
| 63425     | Polyester Acrylate                         | ·Low viscosity<br>·Good curing speed<br>·Good flexibility<br>·Good adhesion<br>·Good wettability of the substrate                   | ·UV inkjet inks<br>·UV wood coatings<br>·UV overprint varnish<br>·UV inks<br>·UV fiber coatings<br>·UV plastic coatings   | 3             | Clear & Clean       | 100 (APHA)      | 8~16                 | -                   | 180~280                  | -        | -     | -                 | -    |

**POLYESTER  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description        | Characteristics  | Applications   | Functionality | Appearance          | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C ) | Tg (°C ) | Shore | Regulatory Status |      |
|-----------|-----------------------------|--|--|---------------|---------------------|-----------------|----------------------|---------------------|--------------------------|----------|-------|-------------------|------|
|           |                             |  |  |               |                     |                 |                      |                     |                          |          |       | REACH             | TSCA |
| 63427     | Polyester Acrylate          | ·Low viscosity<br>·Good curing speed<br>·Good leveling<br>·Good pigment wettability and dispersion | ·UV wood coatings<br>·UV overprint varnish<br>·UV inks<br>·UV plastic coatings | 4             | Clear & Clean       | 1               | 2                    | -                   | 500~900                  | -        | -     | -                 | -    |
| 6345      | Polyester Tetraacrylate     | ·Excellent adhesion<br>·Excellent leveling and fullness<br>·Good pigment compatibility             | ·UV colored monocoat with high gloss   | 4             | Lightly yellow      | <2              | -                    | -                   | 2,500-5,500              | -        | -     | -                 | -    |
| 6349      | Polyester Acrylate          | ·Good adhesion<br>·Fast curing speed<br>·Good ink performance                                      | ·UV offset inks<br>·VM base coat for PCTA, PETG                                | 3             | Clear & Clean       | 6               | -                    | -                   | 2,500~3,800(60°C )       | -        | -     | R                 | V    |
| 6351      | Polyester Acrylate          | ·Low viscosity<br>·Good leveling<br>·Good UV/EB cure reactivity                                    | ·Wood varnishes<br>·Coating for plastics<br>·UV inks                           | 4             | Clear & Clean       | 1               | 2                    | -                   | 1,000~2,000              | 17.5     | 6D    | -                 | -    |
| 6353      | Polyester Acrylate          | ·High viscosity and low tack<br>·Good pigment wetting<br>·Good water pick up                       | ·UV offset inks  | 4             | Light yellow liquid | 2               | 5                    | -                   | 1,500~1,700(60°C )       | 84.3     | 5D    | R                 | V    |
| 6353-1    | Polyester Acrylate          | ·High viscosity and low tack<br>·Good pigment wetting<br>·Good water pick up<br>·Toluene free      | ·UV offset inks  | 3             | Light yellow liquid | 2               | 3                    | -                   | 1,900~2,100(60°C )       | 73.6     | 95A   | R                 | V    |
| 6355      | Polyester Acrylate          | ·Good flexibility<br>·Good adhesion<br>·Good solvent resistance                                    | ·Overprint varnish for paper & board<br>·wood varnishes                        | 2             | Light yellow liquid | 2               | 3                    | -                   | 40,000~5,5000            | 26.0     | 93A   | -                 | V    |
| 63571     | Modified Polyester Acrylate | ·Good pigment wetting  | ·UV. Inks  | 3             | Slight haze         | -               | <10                  | <5                  | 5,300~6,500(60°C)        | -        | -     | -                 | -    |
| 63581     | Polyester Acrylate          | ·Good toughness<br>·Good pigment wetting<br>·Good curing speed                                     | ·UV offset inks  | 3             | Clear & Clean       | 2 max.          | 10 max.              | -                   | 35,000-45,000            | -        | -     | R                 | -    |
| 63596     | Polyester Acrylate          | ·Good adhesion<br>·Good curing speed   | ·UV offset inks  | 3             | Clear & Clean       | 6 max.          | 10 max.              | -                   | 2,500~3,800(60°C)        | -        | -     | -                 | -    |
| 63597     | Polyester Acrylate          | ·Good yellowing resistance<br>·Good pigment wetting (TiO2)<br>·Good curing speed                   | ·UV offset inks<br>·UV screen inks   | 3             | Clear & clean       | 2 max.          | 13 max.              | -                   | 1,300~2,000 (60°C)       | -        | -     | -                 | -    |
| 63597N    | Polyester Acrylate          | ·Good yellowing resistance<br>·Good pigment wetting (TiO2)<br>·Good curing speed                   | ·UV can coating  | 3             | Clear & clean       | 2 max.          | -                    | -                   | 1,500~3,500 (60°C)       | -        | -     | -                 | -    |

**POLYESTER  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                   | Characteristics   | Applications  | Functionality | Appearance                 | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C ) | Tg (°C ) | Shore | Regulatory Status |      |
|-----------|--|---|---|---------------|----------------------------|-----------------|----------------------|---------------------|--------------------------|----------|-------|-------------------|------|
|           |  |   |   |               |                            |                 |                      |                     |                          |          |       | REACH             | TSCA |
| 6360      | Polyester Acrylate                     | ·Good self-matting<br>·Good adhesion<br>·Good flexibility   | ·UV matting coatings for paper<br>·UV matting coatings for wood                               | 2             | Slight haze                | -               | -                    | -                   | 4,000~6,500              | 4.1      | 85A   | -                 | V    |
| 63608     | Polyester Acrylate                     | ·Excellent curing speed<br>·Good matting efficiency<br>·Excellent scratch resistance<br>·Excellent stability                      | ·UV plastic matting topcoat<br>·UV wood matting topcoat<br>·UV OPV matting topcoat            | 4             | Slight haze                | -               | -                    | -                   | 500~1,000                | -        | -     | -                 | -    |
| 6361-100  | Hyperbranched Polyester Acrylate       | ·Low viscosity<br>·Low shrinkage<br>·Good toughness   | ·Plastic coating, such as PCTA, ABS and PC<br>·Metal coating<br>·Flexographic and inkjet inks | 8             | Clear & Clean              | 2               | 10                   | -                   | 150~250                  | 51.6     | 39A   | -                 | V    |
| 6363      | Hyperbranched Polyester Acrylate       | ·Good toughness<br>·Good leveling<br>·Good impact resistance<br>·Good abrasion resistance<br>·Good adhesion to metal and aluminum | ·Coats of UV vacuum metallization<br>·UV metal coating  | 15~18         | Clear & Clean              | 2               | 15                   | -                   | 3,000~6,000              | -        | -     | -                 | -    |
| 6371      | Polyester Acrylate                     | ·High refractive index<br>·Fast curing speed<br>·Recoverability   | ·High refractive index BEFcoating   | 2             | Clear & Clean              | 80(APHA)        | 0.5                  | 103.8               | 5,000~8,000              | 23.8     | -     | -                 | -    |
| 6372      | Polyester Acrylate                     | ·High refractive index<br>·Fast curing speed<br>·Recoverability   | ·High refractive index BEFcoating   | 2             | Clear & Clean              | 80(APHA)        | 0.5                  | 25.5                | 2,200~3,200              | -8.2     | -     | -                 | -    |
| 6390F     | Fatty Acid Modified Polyester Acrylate | ·Good heat resistance<br>·Good adhesion to BMC/PBT/PA/metal substrates<br>·Good flexibility and impact strength                   | ·UV VM basecoat for BMC/PBT/PA & metal<br>·UV topcoat for metal substrates                    | 3~4           | Clear & Clean              | 6               | -                    | -                   | 80~200                   | -        | -     | R                 | V    |
| 63928     | Polyester Acrylate                     | ·Good curing speed<br>·Good yellowing resistance<br>·UV-LED Accelerator   | ·UV inks<br>·UV wood coatings   | 4             | Clear & Clean              | 2               | -                    | -                   | 3,000~4,000              | -        | -     | -                 | -    |
| DR-E504   | Polyester Acrylate                     | ·Good adhesion<br>·Good hardness<br>·Excellent water resistance   | ·UV offset ink<br>·UV screen ink  | 3             | Light yellowish            | 2               | 3~10                 | -                   | 8,500~10,000 (60°C )     | 19.0     | 90A   | -                 | -    |
| DR-E505   | Modified polyester Acrylate            | ·Good adhesion<br>·Excellent water resistance   | ·UV screen ink<br>·UV screen coating  | 2             | Clear&Clean or Slight haze | 2               | -                    | -                   | 8,000~16,000             | -        | -     | -                 | -    |
| DR-E505-1 | Modified Polyester Acrylate            | ·Excellent adhesion<br>·Good water boiling resistance<br>·Good flexibility  | ·Glass UV inks<br>·Glass UV varnish   | 2             | Slight haze                | 2               | <15                  | <5                  | 3,000~5,000              | 80       | 86    | -                 | -    |
| DR-E522   | Hyperbranched Polyester Acrylate       | ·Good leveling<br>·Good flexibility<br>·Good adhesion<br>·Good yellowing resistance   | ·Coating for plastics   | 15~18         | Clear & Clean              | 2               | 15                   | -                   | 1,500~3,500              | -        | -     | -                 | -    |
| DR-E524   | Polyester Acrylate                     | ·Good adhesion<br>·Good impact resistance<br>·Good anti-misting   | ·UV offset ink for tin-plate<br>·UV can coating   | 2             | Clear & Clean              | 3               | 5                    | -                   | 9,000~12,000(60°C )      | -        | -     | -                 | -    |
| DR-E528   | Polyester Acrylate                     | ·High fullness<br>·Low shrinkage  | ·UV wood coating<br>·UV plastic coatings<br>·UV vacuum metallization coatings                 | 8             | Clear & Clean              | 1               | 8~18                 | -                   | 4,500~5,100(60°C )       | -        | -     | -                 | -    |
| DR-E530   | Polyester Acrylate                     | ·Good adhesion with metal<br>·Good water resistance   | ·UV basecoat for metal  | -             | Clear & Clean              | 2               | -                    | -                   | 20~60                    | -        | -     | -                 | -    |

**POLYESTER  
ACRYLATE  
OLIGOMERS**

**Typical Physical & Chemical Properties**

| ETERCURE®        | Chemical Description | Characteristics   | Applications  | Functionality | Appearance          | Color (Gardner) | Acid Value (mg KOH/) | Tensile Elongation% | Viscosity (cps at 25°C ) | Tg (°C ) | Shore | Regulatory Status |      |
|------------------|----------------------|---|---|---------------|---------------------|-----------------|----------------------|---------------------|--------------------------|----------|-------|-------------------|------|
|                  |                      |   |   |               |                     |                 |                      |                     |                          |          |       | REACH             | TSCA |
| <b>DR-E532</b>   | Polyester Acrylate   | ·Good gloss<br>·Good leveling<br>·Excellent adhesion  | ·UV ink on glass<br>·Coats of UV vacuum metallization<br>·UV metal coating                        | 2             | Clear & Clean       | 3               | 3                    | -                   | 3,500~4,500 (60°C )      | -        | -     | -                 | -    |
| <b>DR-E589</b>   | Polyester Acrylate   | ·Good toughness<br>·Good pigment wetting<br>·Fast curing speed  | ·UV offset inks   | 3             | Clear & Clean       | 3               | 10                   | -                   | -                        | -        | -     | -                 | -    |
| <b>DR-E661</b>   | Polyester Acrylate   | ·Low viscosity<br>·Good curing speed<br>·Good flexibility<br>·Good adhesion   | ·UV inkjet inks<br>·UV overprint vanish<br>·UV inks<br>·UV fiber coatings<br>·UV plastic coatings | 2             | Clear & Clean       | 80 (APHA)       | 0.5                  | 18                  | 110~150                  | -        | -     | -                 | -    |
| <b>DR-E615</b>   | Polyester Acrylate   | ·Good adhesion<br>·Good leveling<br>·Good boiling water resistance  | ·UV VM primer on glass  | 2             | Clear & Clean       | 4               | -                    | -                   | -                        | -        | -     | -                 | -    |
| <b>DR-E618</b>   | Polyester Acrylate   | ·Fast curing speed<br>·Good pigment wetting<br>·Good water balance  | ·UV offset inks<br>·UV screen ink   | 2             | Light yellow liquid | 4               | 15                   | 5.0                 | 2,500~4,000(60°C )       | 68.7     | -     | -                 | V    |
| <b>DR-E630</b>   | Polyester Acrylate   | ·Good heat resistance<br>·Good adhesion to BMC/PBT/PA/metal substrates<br>·Good flexibility and impact strength   | ·UV lithographic ink<br>·UV coatings for metal, plastic and paper                                 | 2             | Light yellow liquid | 6               | -                    | -                   | 80~200                   | -        | -     | -                 | -    |
| <b>DR-E638NT</b> | Polyester Acrylate   | ·Fast curing speed<br>·High hardness<br>·Good scratch resistance<br>·Good solvent resistance<br>·Easy-to-matt and low gloss (when combine with matting agent)<br>·Low viscosity | ·UV Plastic matting topcoat<br>·UV wood matting topcoat<br>·UV OPV matting topcoat                | 4             | Clear & Clean       | 1               | -                    | -                   | 30~50                    | -        | -     | -                 | -    |
| <b>DR-E650</b>   | Polyester Acrylate   | ·Good adhesion<br>·Fast curing speed<br>·Good chemical resistance   | ·UV Protective inks on glass<br>·UV Screen inks on glass  | 2             | Clear & Clean       | 3               | 20                   | -                   | 6,000~7,000 (60°C )      | -        | -     | -                 | -    |

**REACTIVE  
AMINE  
SYNERGISTS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description            | Characteristics  | Applications   | Functionality | Appearance             | Color (Gardner) | Tensile Elongation% | Viscosity (cps at 25°C) | Tg (°C) | Regulatory Status |      |
|-----------|---------------------------------|--|--|---------------|------------------------|-----------------|---------------------|-------------------------|---------|-------------------|------|
|           |                                 |  |  |               |                        |                 |                     |                         |         | REACH             | TSCA |
| 641       | Tertiary Amine Acrylate         | <ul style="list-style-type: none"> <li>·Good diluent efficiency</li> <li>·Less migration after cured</li> <li>·Increase UV cure speed</li> </ul>   | <ul style="list-style-type: none"> <li>·Adhesion promoter for PVC plastics</li> <li>·UV clear coating</li> <li>·Increase gloss retention</li> </ul>  | 1             | Light Yellowish Liquid | 4               | 38.0                | 25~40                   | -49.6   | -                 | -    |
| 6410      | Special Tertiary Amine Acrylate | <ul style="list-style-type: none"> <li>·Less migration after cured</li> <li>·Increase UV cure speed</li> <li>·Low odor</li> <li>·Light color</li> </ul>  | <ul style="list-style-type: none"> <li>·Wood coatings</li> <li>·UV overprint varnishes</li> </ul>  | 2             | Clear & Clean          | 1               | 36.0                | 1,000~3,000             | -11.1   | -                 | V    |
| 6411      | Special Tertiary Amine Acrylate | <ul style="list-style-type: none"> <li>·Fast curing speed</li> <li>·Low odor</li> <li>·Light color</li> <li>·Less surface migration of amine</li> </ul>  | <ul style="list-style-type: none"> <li>·Wood coatings</li> <li>·UV overprint varnishes</li> </ul>  | 2             | Clear & Clean          | 1               | 39.0                | 180~200                 | -16.0   | -                 | V    |
| 6412      | Special Tertiary Amine Acrylate | <ul style="list-style-type: none"> <li>·Fast curing speed</li> <li>·Low odor</li> <li>·Light color</li> </ul>  | <ul style="list-style-type: none"> <li>·UV overprint varnishes</li> <li>·Coating for paper &amp; plastics</li> <li>·Lithographic &amp; screen inks</li> <li>·Wood coatings</li> </ul>                          | 4             | Clear & Clean          | 1               | -                   | 1,000~3,000             | 10.0    | -                 | -    |
| 6417      | Special Tertiary Amine Acrylate | <ul style="list-style-type: none"> <li>·Fast curing speed</li> <li>·Low odor</li> <li>·Less surface migration of amine</li> </ul>  | <ul style="list-style-type: none"> <li>·UV overprint varnishes</li> <li>·Coating for paper &amp; plastics</li> <li>·Lithographic &amp; screen inks</li> <li>·Wood coatings</li> </ul>                          | 1~2           | Clear & Clean          | 2               | -                   | 800~1,200               | -43.1   | R                 | V    |
| 6420      | Reactive Amine Synergist        | <ul style="list-style-type: none"> <li>·Fast curing speed, especially at the surface</li> <li>·Low level of odor</li> <li>·Light color</li> <li>·Less surface migration of amine</li> <li>·Good stability</li> </ul>                           | <ul style="list-style-type: none"> <li>·UV overprint varnishes</li> <li>·Screen and flexo inks</li> <li>·Wood coatings</li> <li>·Clear varnishes on paper and plastics</li> <li>·Pigmented coatings</li> </ul> | -             | Clear & Clean          | 2               | 30.2                | 15~25                   | -       | -                 | V    |
| 6420-TF   | Reactive Amine Synergist        | <ul style="list-style-type: none"> <li>·Fast curing speed, especially at the surface</li> <li>·Low level of odor</li> <li>·Light color</li> <li>·Less surface migration of amine</li> <li>·Good stability</li> </ul>                           | <ul style="list-style-type: none"> <li>·UV overprint varnishes</li> <li>·Screen and flexo inks</li> <li>·Wood coatings</li> <li>·Clear varnishes on paper and plastics</li> <li>·Pigmented coatings</li> </ul> | -             | Clean & Clean          | 2               | -                   | 15~25                   | -       | -                 | V    |
| 6422-TF   | Reactive Amine Synergist        | <ul style="list-style-type: none"> <li>·Good diluent efficiency</li> <li>·Low odor</li> <li>·Less migration after cured</li> <li>·Fast cure speed, especially at the surface</li> <li>·Faster cure speed, especially at the surface</li> </ul> | <ul style="list-style-type: none"> <li>·Wood coatings</li> <li>·Screen and flexo inks</li> <li>·Overprint varnishes</li> <li>·Clear varnishes on paper and plastics</li> <li>·Pigmented coatings</li> </ul>    | -             | Clear & Clean          | 1               | -                   | 70~100                  | -       | -                 | -    |
| 645       | Special Tertiary Amine Acrylate | <ul style="list-style-type: none"> <li>·Low odor</li> <li>·Less migration after cured</li> <li>·Fast cure speed</li> </ul>   | <ul style="list-style-type: none"> <li>·In place of non-reactive amine synergists</li> <li>·UV overprint varnishes</li> </ul>  | 1~2           | Clear & Clean          | 4               | 35.4                | 100~130                 | -17.2   | -                 | V    |
| 647       | Special Tertiary Amine Acrylate | <ul style="list-style-type: none"> <li>·Fast curing speed</li> <li>·Low odor</li> <li>·Light color</li> <li>·Less surface migration of amine</li> </ul>  | <ul style="list-style-type: none"> <li>·In place of non-reactive amine synergists</li> <li>·UV overprint varnishes</li> </ul>  | 1~2           | Clear & Clean          | 3               | 35.7                | 75~95                   | -32.1   | -                 | V    |

**FULL  
ACRYLICS**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                             | Characteristics   | Applications   | Appearance             | Color (Gardner) | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|--|---|--|------------------------|-----------------|-------------------------|---------|-------|-------------------|------|
|           |  |   |  |                        |                 |                         |         |       | REACH             | TSCA |
| 65188     | Hotmelt Acrylic Adhesive                         | ·Low Adhesion<br>·Good Water and Heat Resistance<br>·Excellent Cohesion   | ·UV removable tape<br>·UV protective film                  | yellowing liquid       | -               | 10,000~50,000 (130°C)   | -55     | -     | -                 | -    |
| 6526-1    | Hotmelt Acrylic Adhesive                         | ·Good Adhesion<br>·Excellent Cohesion   | ·UV Tape<br>·UV Adhesives                                  | Clear & Clean          | -               | 20,000~75,000 (130°C)   | -43     | -     | R                 | V    |
| 65267     | Hotmelt Acrylic Adhesive                         | ·High Adhesion<br>·Good Cohesion  | ·UV Tape<br>·UV adhesive tape for assemble cable harnesses | light yellowing liquid | -               | 20,000~75,000 (130°C)   | -36     | -     | R                 | V    |
| 6528      | Hotmelt Acrylic Adhesive                         | ·Excellent Adhesion<br>·Excellent Heat Resistance   | ·UV protective tape<br>·UV medical adhesives               | Yellowing Liquid       | -               | 20,000~70,000 (130°C)   | -36     | -     | -                 | -    |
| 6530B-40  | A Full Acrylic Resin Diluted in 60% HDDA         | ·Fast curing speed<br>·High hardness<br>·Good weather resistance<br>·Good adhesion to difficult substrates  | ·UV coatings on paper, plastics, metal, wood<br>·UV inks   | Clear & Clean          | 1               | 13,000~16,500           | 73.6    | 91A   | -                 | V    |
| 6533B-40  | A Full Acrylic Resin Diluted in 60% HDDA         | ·Good hardness and toughness<br>·Good soluble to monomers<br>·Good weather resistance<br>·Improve adhesion to different substrate                 | ·UV coatings on paper, plastics, metal, wood<br>·UV inks   | Clear & Clean          | 1               | 16,000~32,000           | 86.2    | 90A   | -                 | V    |
| 65352     | A Full Acrylic Resin                             | ·High transparency<br>·Good yellow resistance<br>·High thermal and humidity stability (60°C/90% Rh 500hr)<br>·High elongation<br>·Medium adhesion | ·UV OCA (OCA, OCR)<br>·UV pressure sensitive adhesive      | Clear & Clean          | <2              | 10,000~20,000           | -52     | 30C2  | -                 | -    |
| 65357     | A Full Acrylic Resin                             | ·High adhesion<br>·High holding power<br>·High elongation   | ·UV pressure sensitive adhesive                            | Clear & Clean          | <2              | 10,000~20,000           | -       | -     | -                 | -    |
| 6536-1    | A Full Acrylic Resin diluted in 50% HDDA         | ·Good flexibility<br>·Good Anti-stick back<br>·Good adhesion to OPP   | ·UV. Screen printing ink                                   | Slightly turbid        | -               | 15,000~35,000           | -       | -     | -                 | V    |
| DR-A801   | A Full Acrylic Resin Diluted in 46% HDDA / TPGDA | ·Fast curing speed<br>·Good flexibility<br>·Improve adhesion to different substrate   | ·UV coatings on paper, plastics, metal, wood<br>·UV inks   | Clear & Clean          | 2.5             | 13,000~20,000           | 7.1     | 91A   | -                 | V    |



# FULL ACRYLICS

## Typical Physical & Chemical Properties

| ETERCURE® | Chemical Description                             | Characteristics  | Applications   | Appearance    | Color (Gardner) | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|--|--|--|---------------|-----------------|-------------------------|---------|-------|-------------------|------|
|           |  |  |  |               |                 |                         |         |       | REACH             | TSCA |
| DR-A815   | A Full Acrylic Resin Diluted in 40% DPGDA        | ·Excellent adhesion to difficult substrates<br>·High gloss<br>·Good hardness   | ·UV plastic coatings<br>·UV varnish for OPP<br>·Overprint varnishes          | Clear & Clean | 2               | 2,000~4,000(60°C)       | 89.4    | 79    | -                 | -    |
| DR-A819   | A Full Acrylic Resin                             | ·Good flexibility<br>·High fullness<br>·Dual-cure (UV+thermal curing)  | ·UV topcoat for 3C<br>·UV topcoat for plastics                               | Clear & Clean | 2               | 2,000~4,000             | 67.0    | -     | -                 | -    |
| DR-A820   | A Full Acrylic Resin                             | ·Good hardness<br>·Excellent chemical resistance<br>·Dual-cure (UV+thermal curing)                                       | ·Car interior<br>·Good curing speed with pigment<br>·UV topcoat for plastics | Clear & Clean | 2               | 5,000~10,000            | 57.0    | -     | -                 | -    |
| DR-A823   | A Full Acrylic Resin                             | ·Dual-cure<br>·Fast curing speed<br>·Tack free   | ·UV plastic coating  | Clear & Clean | 2               | 15,000~45,000           | 110     | 78    | -                 | -    |
| DR-A825   | A Full Acrylic Resin                             | ·Tack-free<br>·Thermal forming<br>·Dual-cure (UV+thermal curing)   | ·UV matting topcoat for Plastics<br>·IMD process                             | Cloudy Liquid | <2              | 15,000~35,000           | 70      | -     | -                 | -    |
| DR-A827   | A Full Acrylic Resin                             | ·Excellent leveling<br>·Excellent fullness<br>·Good adhesion<br>·Good water resistance<br>·Dual-cure (UV+thermal curing) | ·Automotive interiors<br>·Refinishing  | Clear & Clean | 2               | 800~1,400               | -23     | 44    | -                 | -    |
| DR-A830   | A Full Acrylic Resin                             | ·Good adhesion on untreated PP   | ·Adhesion promoter on untreated PP   | Clear & Clean | 3 max.          | 15~35                   | -       | -     | -                 | -    |
| DR-A832   | A Full Acrylic Resin                             | ·Adhesion promoter   | ·UV Plastic coatings<br>·UV inks<br>·Overprint varnishes                     | Clean & Clear | <2              | 14,000~21,000           | -       | -     | -                 | -    |
| DR-A845   | A Full Acrylic Resin Diluted in 46% HDDA / TPGDA | ·Good flexibility<br>·Good pigment wetting<br>·Good leveling   | ·UV tin-plate offset ink<br>·UV screen ink                                   | Clear & Clean | 1.5             | 7,000~13,000            | -       | -     | -                 | V    |
| DR-A870   | A Full Acrylic Resin Diluted in 50% THFA         | ·Excellent adhesion<br>·Good crack resistance<br>·Good water resistance  | ·Plastic coating<br>·UV inks<br>·Adhesives                                   | Clear & Clean | 1               | 600~1,200               | 90.5    | -     | R                 | -    |
| DR-A893   | A Full Acrylic Resin                             | ·Excellent leveling<br>·Excellent fullness<br>·Good impact resistance<br>·Dual-cure (UV+thermal curing)                  | ·UV plastic coating<br>·Wheel shell finish                                   | Clear & Clean | 2               | 2,800~3,600             | -23     | 44    | -                 | -    |

**SPECIFIC  
FUNCTIONAL  
ACRYLATES**

**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description                                     | Characteristics   | Applications  | Appearance    | Color (Gardner) | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|--|---|---|---------------|-----------------|-------------------------|---------|-------|-------------------|------|
|           |  |   |   |               |                 |                         |         |       | REACH             | TSCA |
| 601A-35   | Organic-Inorganic Hybrid Material Dispersion in TPGDA    | <ul style="list-style-type: none"> <li>Improved scratch-abrasion and chemical-resistance</li> <li>High durability to weathering and environmental exposure</li> <li>Higher thermal stability and flame retardancy</li> <li>Improved adhesion on various substrates</li> <li>Better dimensional stability and low shrinkage</li> <li>Antistatic and antiblocking properties</li> <li>Anticorrosion effect</li> </ul> | <ul style="list-style-type: none"> <li>Paints, varnishes and adhesives</li> <li>Inks and overprint varnishes</li> <li>Polymer substrates</li> <li>Optical coatings</li> </ul> | Clear & Clean | 1               | 170~230                 | 62.7    | 14D   | -                 | V    |
| 601C-35   | Organic-Inorganic hybrid Material Dispersion in TMPTA    | <ul style="list-style-type: none"> <li>Improved scratch-abrasion and chemical-resistance</li> <li>High durability to weathering and environmental exposure</li> <li>Higher thermal stability and flame retardancy</li> <li>Improved adhesion on various substrates</li> <li>Better dimensional stability and low shrinkage</li> <li>Antistatic and antiblocking properties</li> <li>Anticorrosion effect</li> </ul> | <ul style="list-style-type: none"> <li>Paints, varnishes and adhesives</li> <li>Inks and overprint varnishes</li> <li>Polymer substrates</li> <li>Optical coatings</li> </ul> | Clear & Clean | 1               | 1,000~2,000             | 51.6    | 18D   | -                 | V    |
| 601Q-35   | Organic-Inorganic Hybrid Material Dispersion in DPHA     | <ul style="list-style-type: none"> <li>Improved scratch-abrasion and chemical-resistance</li> <li>High durability to weathering and environmental exposure</li> <li>Higher thermal stability and flame retardancy</li> <li>Improved adhesion on various substrates</li> <li>Better dimensional stability and low shrinkage</li> <li>Antistatic and antiblocking properties</li> <li>Anticorrosion effect</li> </ul> | <ul style="list-style-type: none"> <li>Paints, varnishes and adhesives</li> <li>Inks and overprint varnishes</li> <li>Polymer substrates</li> <li>Optical coatings</li> </ul> | Clear & Clean | 1               | 12,000~25,000           | 47.9    | 29D   | -                 | V    |
| 601X-35   | Organic-Inorganic Hybrid Material Dispersion in 6195-100 | <ul style="list-style-type: none"> <li>Improved scratch-abrasion and chemical-resistance</li> <li>High durability to weathering and environmental exposure</li> <li>Higher thermal stability and flame retardancy</li> <li>Improved adhesion on various substrates</li> <li>Better dimensional stability and low shrinkage</li> <li>Antistatic and antiblocking properties</li> <li>Anticorrosion effect</li> </ul> | <ul style="list-style-type: none"> <li>Paints, varnishes and adhesives</li> <li>Inks and overprint varnishes</li> <li>Polymer substrates</li> <li>Optical coatings</li> </ul> | Clear & Clean | 1               | 45,000~65,000           | -       | -     | -                 | -    |
| 605S      | Organic-Inorganic Hybrid acrylate                        | <ul style="list-style-type: none"> <li>Fast curing speed</li> <li>Excellent steel wool resistance</li> <li>High hardness</li> </ul>   | <ul style="list-style-type: none"> <li>UV Hardcoat</li> </ul>   | Haze          | -               | 3~5                     | 125     | -     | -                 | -    |

**SPECIFIC  
FUNCTIONAL  
ACRYLATES**

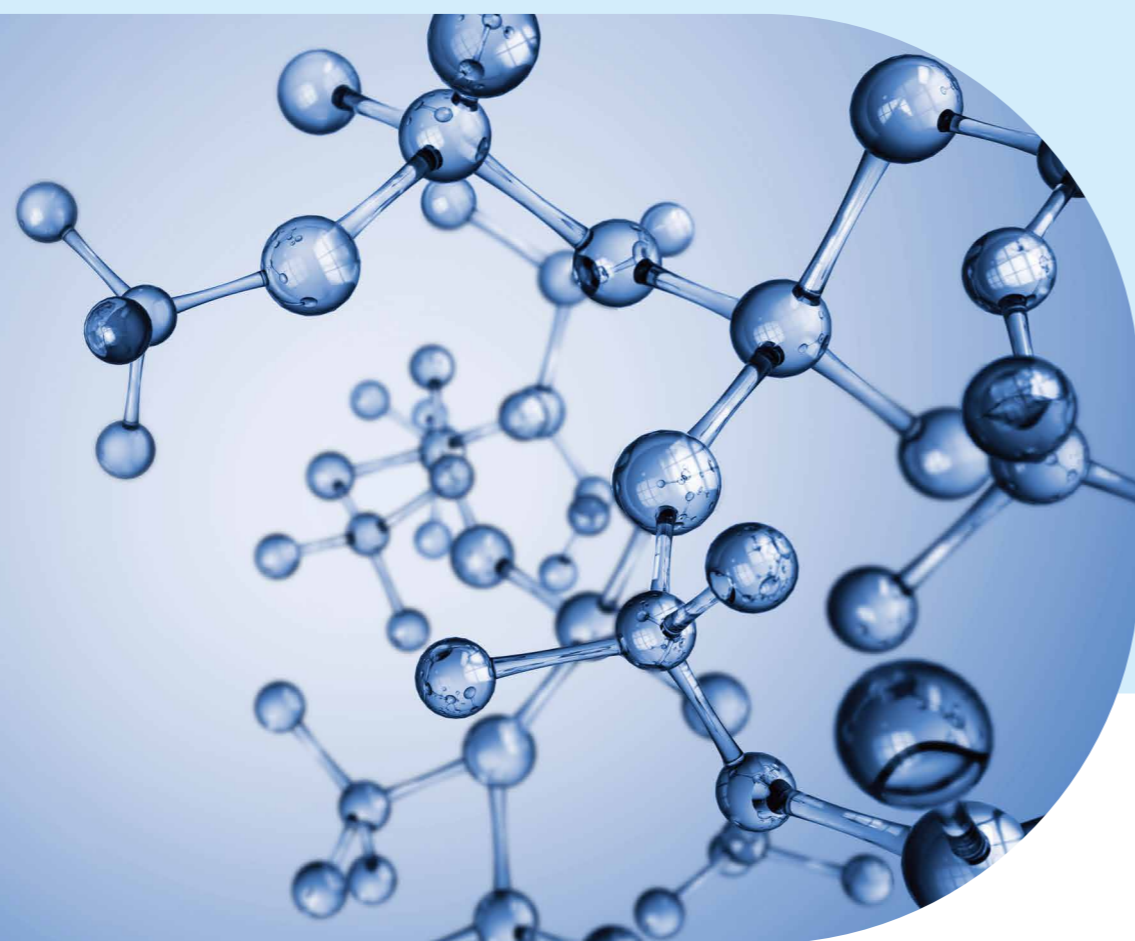
**Typical Physical & Chemical Properties**

| ETERCURE® | Chemical Description            | Characteristics   | Applications   | Appearance    | Color (Gardner) | Acid Value (mg KOH/g) | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|-----------|---------------------------------|---|--|---------------|-----------------|-----------------------|-------------------------|---------|-------|-------------------|------|
|           |                                 |   |  |               |                 |                       |                         |         |       | REACH             | TSCA |
| 6063      | Modified Solvent Based Acrylate | ·Good adhesion to aluminum<br>·Good flexibility<br>·Good leveling   | ·UV spray topcoat on plastics<br>·UV topcoat on aluminum paste primer  | Clear & Clean | 1               | -                     | 500~650                 | 75.5    | 85A   | -                 | V    |
| 6068W     | Modified Solvent based Acrylate | ·Excellent levelling<br>·Good adhesion<br>·Excellent fullness<br>·Excellent wetting properties  | ·UV spray topcoat for plastics<br>·UV VM topcoat   | Clear & Clean | 2               | -                     | 8,000-12,000            |         |       | -                 | -    |
| 6071      | Modified Solvent Based Acrylate | ·Good adhesion to aluminum<br>·Good hardness and high gloss   | ·UV topcoat on aluminum panel & aluminum paste primer  | Clear & Clean | 1               | -                     | 1,500~2,300             | 122.0   | 90D   | -                 | V    |
| 60711     | Modified Solvent based Acrylate | ·Good dye compatibility<br>·Excellent adhesion and hardness<br>·Good levelling<br>·Excellent scratch resistance                         | ·UV spray topcoat on plastics<br>·UV VM topcoat  | Clear & Clean | 1               | -                     | 1,200~1,500             | -42.4   | -     | -                 | -    |
| 60713     | Modified Solvent based Acrylate | ·Tack free<br>·Excellent scratch resistance<br>·Excellent alcohol resistance  | ·UV spray topcoat for plastics<br>·UV.VM. Topcoat  | Clear & Clean | 1               | -                     | 300~500                 | 68      | -     | -                 | -    |
| 6071-5    | Modified Solvent based Acrylate | ·Good flexibility<br>·Good adhesion<br>·Good yellowing resistance   | ·UV spray topcoat for plastics<br>·UV.VM. Topcoat  | Clear & Clean | 1               | -                     | 700~1,500               | -       | -     | -                 | -    |
| 6071-C    | Modified Solvent Based Acrylate | ·Good adhesion<br>·Good heat resistance<br>·Good flexibility  | ·UV plastic coating<br>·UV VM topcoat or intermediate coat   | Clear & Clean | 2               | -                     | 1,500~2,300             | 122.0   | -     | -                 | -    |
| 60717     | Modified Solvent based Acrylate | ·Good dye compatibility<br>·Excellent adhesion and hardness<br>·Excellent anti-graffiti<br>·Good resistance to cracking                 | ·UV spray topcoat for plastics<br>·Plastic Primer  | Clear & Clean | 1               | -                     | 1,500~2,500             | -30     | -     | -                 | -    |
| 60719     | Modified Solvent based Acrylate | ·Good levelling<br>·Excellent adhesion<br>·Good dye compatibility   | ·UV spray topcoat on plastics<br>·UV VM topcoat  | Clear & Clean | 1               | -                     | 2,200~2,800             | -30     | -     | -                 | -    |
| 60725     | Solvent based Acrylate Oligomer | ·Excellent adhesion between VM layer and UV topcoat<br>·Good pigment compatibility<br>·Good flexibility to promote vibration resistance | ·UV VM colored middle coat   | Clear & Clean | < 1             | -                     | 400 ~ 800               | -       | -     | -                 | -    |
| 60727     | Solvent based Acrylate Oligomer | ·Excellent adhesion between VM layer and UV topcoat<br>·Good boiling water resistance<br>·Good heat resistance                          | ·UV VM colored middle coat   | Clear & Clean | < 1             | -                     | 1,000~1,500             | -       | -     | -                 | -    |
| 60728     | Solvent based Acrylate Oligomer | ·Excellent adhesion between VM layer and UV topcoat<br>·Excellent Leveling<br>·Good pigment compatibility                               | ·UV VM colored middle coat<br>·UV VM colored top coat  | Clear & Clean | < 1             | -                     | 1,800~3,300             | -       | -     | -                 | -    |
| 6077      | Modified Solvent Based Acrylate | ·Good adhesion to aluminum<br>·Good hardness and high gloss   | ·Top coatings for spray coating with plastic base<br>·Top coatings with aluminum base, vacuum metalizing thin film | Slight haze   | 1               | -                     | 1,500~2,300             | 119.0   | 85A   | -                 | -    |

**SPECIFIC  
FUNCTIONAL  
ACRYLATES**

**Typical Physical & Chemical Properties**

| ETERCURE®          | Chemical Description                        | Characteristics  | Applications  | Appearance         | Color (Gardner) | Acid Value (mg KOH/g) | Viscosity (cps at 25°C) | Tg (°C) | Shore | Regulatory Status |      |
|--------------------|---|--|---|--------------------|-----------------|-----------------------|-------------------------|---------|-------|-------------------|------|
|                    |   |  |   |                    |                 |                       |                         |         |       | REACH             | TSCA |
| <b>648-1</b>       | Acrylated, Carboxyl Acid Terminated         | ·Acrylate functionality, carboxylic acid   | ·UV curable etching resists<br>·UV curable plating resists  | Clear & Clean      | 1               | App.210               | 3,000~10,000            | 44.7    | -     | -                 | V    |
| <b>649</b>         | Methacrylated, Carboxyl Acid Terminated     | ·Methacrylate functionality, carboxylic acid   | ·UV curable etching resists<br>·UV curable plating resists  | Clear & Clean      | 1               | App.200               | 3,000~6,000             | 85.1    | -     | -                 | V    |
| <b>7200C</b>       | Modified Solvent Based Acrylate             | ·Excellent metal adhesion<br>·Good salt mist resistance<br>·Good toughness<br>·Fast curing speed   | ·UV topcoat for metals<br>·Anti-corrosion coating   | Clear & Clean      | 2               | -                     | 5,000~10,000            | -       | -     | -                 | -    |
| <b>8000A</b>       | Multifunctional Aliphatic Urethane Acrylate | ·High transparency<br>·Good toughness<br>·Good resistance to yellowing<br>·Good water resistance   | ·UV scratch resistance coatings on plastic<br>·UV topcoat for PET film<br>·UV hardcoatings for touch-pad  | Clear & Clean      | 1               | -                     | 2,400~3,200             | 75.8    | 10D   | -                 | V    |
| <b>DR-M451</b>     | Melamine Acrylate                           | ·Light color<br>·Fast curing speed<br>·Good yellowing resistance<br>·Good hardness   | ·UV plastic coating<br>·UV wood coating   | Clear & Clean      | 1 Max.          | -                     | 2,500~3,500             | 76.8    | -     | -                 | -    |
| <b>DR-M458</b>     | Melamine Acrylate                           | ·Excellent acid and alkaline resistance<br>·Excellent hand sweat resistance<br>·Excellent flame resistance   | ·UV varnish<br>·UV VM coating<br>·PVC flooring  | Slight haze        | -               | 1                     | 3,000~4,500(60°C)       | 87.5    | -     | -                 | -    |
| <b>ETERSLIP 90</b> | Silicone Urethane Acrylate                  | ·Good wetting<br>·Good leveling  | ·UV plastic coating   | Clear & Clean      | -               | -                     | 13,000~23,000           | -       | -     | -                 | -    |
| <b>64801</b>       | Carboxypolycaprolactone monoacrylate        | ·Impact resistance<br>·High flexibility<br>·Flowable in room temperature<br>·Antistatic performance<br>·Excellent improvement for adhesion on metals | ·UV curable coating resin<br>·Adhesives<br>·Additives of resins or polyesters<br>·Ink<br>·Protective film | Pale yellow Liquid | -               | 170-200               | 80~180                  | -       | -     | -                 | -    |



# PHOTOINITIATOR

|                             |    |
|-----------------------------|----|
| <u>ALPHA CLEAVAGE</u>       | 76 |
| <u>HYDROGEN ABSTRACTION</u> | 76 |
| <u>MIXTURE</u>              | 76 |

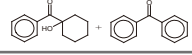
## ALPHA CLEAVAGE

|           |  |   | Typical Physical & Chemical Properties |                            |                      |                  |
|-----------|--|---|--|----------------------------|----------------------|------------------|
| Eterphoto | Chemical Description   |   | Appearance                             | Viscosity<br>(cps at 25°C) | Melting<br>Point(°C) | Molecular Weight |
| PI 907    | 2-Methyl-1-[4-(Methylthio)phenyl]-2-Morpholino-Propane-1-one |  | White crystalline powder               | Solid                      | 72~76                | 279.4            |
| PI TPO    | Diphenyl-(2,4,6-Trimethylbenzoyl)-Phosphine Oxide            |  | Light yellow crystal                   | Solid                      | 90~94                | 348              |
| PI BDK    | Benzil Dimethyl Ketal  |  | White crystalline powder               | Solid                      | 63~67                | 256.3            |
| PI 1173   | 2-Hydroxy-2-Methyl-1-Phenyl-Propane-1-one                    |  | Colorless or slightly yellow liquid    | 15~25                      | -                    | 164.2            |
| PI 184    | 1-Hydroxy -Cyclohexylphenyl-Ketone                           |  | White crystalline powder               | Solid                      | 46~50                | 204.3            |
| PI 55     | Benzoyl Derivative   |  | Light yellow liquid                    | 5~15                       | -                    | -                |

## HYDROGEN ABSTRACTION

|           |   |   | Typical Physical & Chemical Properties |                            |                      |                  |
|-----------|---|---|--|----------------------------|----------------------|------------------|
| Eterphoto | Chemical Description                              |   | Appearance                             | Viscosity<br>(cps at 25°C) | Melting<br>Point(°C) | Molecular Weight |
| PI BP     | Benzophenone                                      |  | White crystalline powder               | Solid                      | 47~49                | 182.2            |
| PI ITX    | Isopropyl Thioxanthone(Mixture of 2-and4-isomers) |  | Yellow or off-yellow powder            | Solid                      | 74~76                | 241              |
| PI BMS    | 4-Benzoyl-4'-methylthiophenylsulphide             |  | Silver white flake                     | Solid                      | 75~85                | 304              |
| PI MBB    | Methyl-2-Benzoyl Benzoate                         |  | White crystalline powder               | Solid                      | 48~54                | 240.3            |
| PI EDB    | Ethyl-4-(Dimethylamino) benzoate                  |  | White crystalline powder               | Solid                      | 62~67                | 193              |
| PI EHA    | 2-Ethylhexyl 4-Dimethylaminobenzoate              |  | Clear slight yellow liquid             | -                          | 325(Boiling Point)   | 277.4            |

## MIXTURE

|           |                             |   | Typical Physical & Chemical Properties |                            |                      |                  |
|-----------|-----------------------------|---|--|----------------------------|----------------------|------------------|
| Eterphoto | Chemical Description        |   | Appearance                             | Viscosity<br>(cps at 25°C) | Melting<br>Point(°C) | Molecular Weight |
| PI 500    | Mixture of PI 184 and PI BP |  | Colorless or slightly yellow liquid    | 30~50                      | <25                  | 193              |

# symbase

## CONTACT

SYMBASE WOOD Sp. z o.o.  
ul. Firmowa 16, 62-023 Robakowo  
(+48) 781 202 201  
rc@symbase-group.com  
[www.symbase-group.pl](http://www.symbase-group.pl)