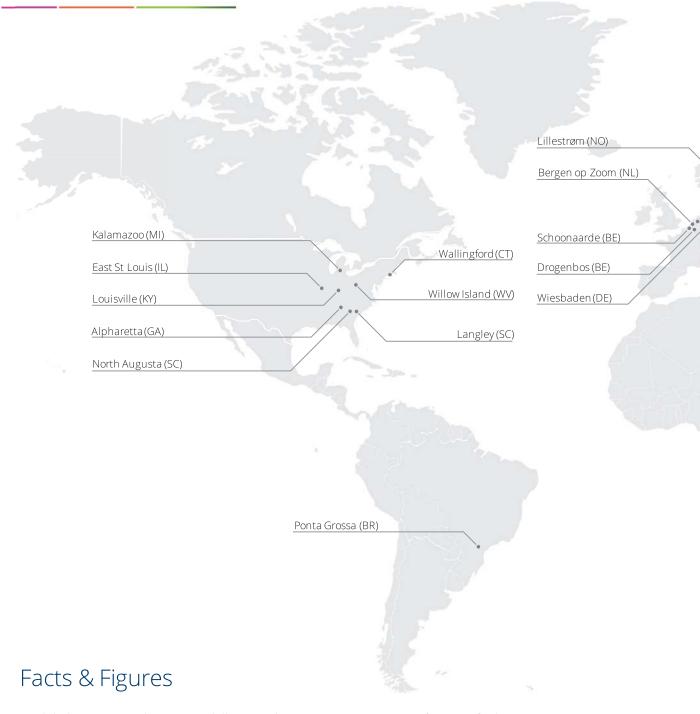
UV/EB CURABLE RESINS

Product Guide - Americas



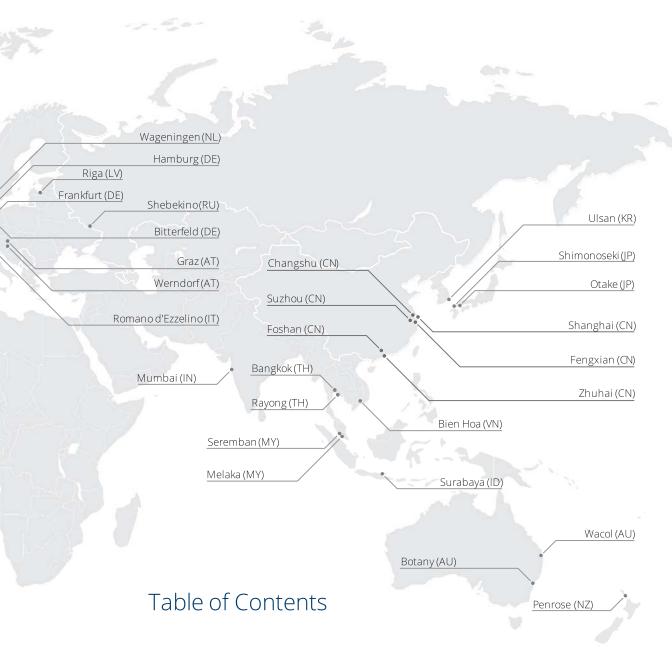




- · Global company with over €2.2 billion in sales
- Broad technology portfolio: liquid coating resins, energy curable resins, powder coating resins, crosslinkers and additives, composites and construction materials
- · Over 4000 employees
- · Customers in more than 100 countries

- 33 manufacturing facilities
- 23 research and technology centers
- 5 joint ventures
- · Globally ISO 9001 Certified
- Extensive range of solutions for key coating segments: automotive, industrial, packaging coating and inks, protective, industrial plastics and specialty architectural

With manufacturing, R&D and technical facilities located throughout Europe, North America, Asia Pacific and Latin America, allnex offers global and reliable supply of resins and additives combined with local, responsive customer support.



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Product Families

| UCECOAT® Waterborne UV Resins | These waterborne resins have low viscosities without the use of diluting acrylates and good physical properties after crosslinking. Several are physically dry after water evaporation. |
|---|--|
| EBECRYL® LEO Resins | LEO (Low Extractables and Odor) resins are specifically formulated to provide a significant reduction in odor release and potential migration for producing inks and coatings for food and pharmaceutical packaging. |
| EBECRYL Urethane Acrylates | Urethane acrylates impart toughness and flexibility. Aliphatic types are non-yellowing and can provide outstanding exterior durability |
| EBECRYL Polyether/Polyester Acrylates & Diluted Polyesters | Polyester acrylates are used in a wide range of applications including flexographic and lithographic inks and coatings for paper and wood. Some specialty polyester oligomers provide good adhesion to various substrates. |
| EBECRYL Acrylic Acrylate & Polymer/Diluent Blends | Acrylic acrylates can provide improved adhesion and are resistant to yellowing. Polymeric resins in monomer can provide adhesion to difficult substrates with low shrinkage and better film formation. |
| EBECRYL Epoxy Acrylates | Epoxy acrylates are used in formulations requiring superior chemical resistance, hardness and fast cure. |
| Diluting Acrylates | Mono, di, tri and higher functional acrylate diluents reduce the viscosity of oligomers and can contribute important physical properties to cured formulations. |
| EBECRYL Additives | Several additives are designed to assist with adhesion or enhance the wetting, flow or slip characteristics of coatings. All are co-polymerizable. |
| EBECRYL Photoinitiators | Photoinitiators absorb UV light and start the polymerization. Product types are hydrogen abstraction and amine synergists. |

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UCECOAT® Waterborne UV Resins

| | | Typical Properties ⁽¹⁾ | | | | | | | | |
|-----------------------|--|--|-----------------------------|-------------------------|----------------------|---------|----------|-----------------------------|--|--|
| Product | Description • Key Features & Performance | Appearance | Viscosity, cP at 25°C | Solids Content, % | Particle size, nm | Н | MFFT, °C | Density, g/ml at 25°C | | |
| Waterborne | UV Dispersions | | | | | | | | | |
| UCECOAT 2501 | Versatile UV PUD for Wood & Furniture Very good cost/performance balance Physically dry/tack free before UV cure Excellent compatibility with WB acrylics Excellent dispersion stability Very good water release | Milky white liquid | <200 | 40 | <125 | 7.0-8.5 | - | 1.1 | | |
| UCECOAT 2801 | Acrylated PUD for WB UV Inkjet · Very low viscosity · Non-physically dry/non-tack free before UV cure · Good water resolubility before cure · GHS label free · Very good UV reactivity | Translucent bluish to white dispersion | 16 | 37 | 90 | 6.4-7.0 | - | 1.05 | | |
| UCECOAT 2804 | Acrylated PUD for WB UV Inkjet Low migration potential Very high reactivity in Hg UV and UV LED Good adhesion to plastic substrates Tackfree and water redispersible after water evaporation but before cure | Translucent bluish dispersion | 75 | 35 | 100 | ~7.5 | - | 1.1 | | |
| UCECOAT 2807 | High Performance Dispersion for Inkjet Printing Low migration potential Low mean particle size, outstanding colloidal stability Good elongation, flexibility Tack free and water redispersible after water evaporation but before cure | Translucent to white liquid | <200 | 35.5- 36.5 | <100 | 7.0-8.5 | <10 | - | | |
| UCECOAT® 7230 ♠ | Acrylated Polyurethane Dispersion High hardness & scratch resistance Good adhesion on plastics such as PC, ABS Non-physically dry/non-tack free before UV cure High gloss Good stain & chemical resistance Good substrate wetting Good compatibility with other waterborne resins | Translucent to white liquid | <200 | 45 | <100 | 7.0-8.0 | - | 1.05 | | |
| UCECOAT 7510 | Acrylated Polyurethane Dispersion Low yellowing on cure Excellent cost/performance balance Excellent dispersion stability Excellent drying properties Nearly tack free after physical drying High hardness Good chemical and stain resistance | Translucent to white liquid | <200 | 40 | <150 | 6.5-8.0 | - | 1.1 | | |
| UCECOAT 7520 | Acrylated Polyurethane Dispersion Outstanding water release Low yellowing on cure Excellent cost/performance balance Excellent cold check resistance Nearly tack free after physical drying Good hardness and reactivity Good chemical and stain resistance | Translucent to white liquid | <200 | 40 | <150 | 6.5-8.0 | - | ~1.1 | | |

⁽¹⁾ Not a specification



Does not contain intentionally added organic tin compounds

| | _ | | Турі | ical Pro | perties ⁽¹⁾ |) | | |
|--|--|------------------------------------|-----------------------------|-------------------------|------------------------|---------|----------|-----------------------------|
| Product | Description • Key Features & Performance | Appearance | Viscosity, cP at 25°C | Solids Content, % | Particle size, nm | Н | MFFT, °C | Density, g/ml at 25°C |
| Waterborne | UV Dispersions | | | | | | | |
| UCECOAT® 7620 •••••••••••••••••••••••••••••••••••• | Acrylated Polyurethane Dispersion Good colloidal stability and substrate wetting Good compatibility with other waterborne resins Tack free after water evaporation before UV curing Very high hardness High gloss & body richness Excellent abrasion & chemical resistance | Milky-white liqui | d <200 | ~40 | <100 | 7.0-8.5 | - | ~1.1 |
| UCECOAT 7630 | Acrylated Polyurethane Dispersion Physically dry/tack free before UV cure Very high reactivity in clear and pigmented systems Good intercoat adhesion without sanding Excellent stain resistance Good compatibility and easy to formulate | Translucent liquid | <200 | 41 | <150 | 7.0-8.5 | - | 1.0 |
| UCECOAT 7655 | Acrylated Polyurethane Dispersion Low viscosity Physically dry/tack free before UV cure Superior hardness and scratch resistance Excellent stain & chemical resistance Excellent reactivity in clear and pigmented coatings Optimized colloidal stability | Translucent to white liquid | 47 | 35 | 64 | 7.0-8.5 | <0 | 1.02 |
| UCECOAT 7674 | Acrylated Polyurethane Dispersion Low viscosity Outstanding wetting of wood Excellent adhesion & appearance Excellent stain & chemical resistance Optimized colloidal stability | Translucent to white liquid | 38 | 39 | 97 | 6.4-7.8 | <0 | 1.05 |
| UCECOAT 7690 | Acrylated Polyurethane Dispersion Low viscosity Tack-free after water evaporation Excellent water release Excellent outdoor resistance High flexibility Good chemical resistance | Translucent liquid | Max. 50 | 0 ~35 | <100 | 7.0-8.5 | 6 | ~1.1 |
| UCECOAT 7700 \$6 | Acrylated Polyurethane Dispersion Low viscosity Physically dry/tack free before UV cure Very high reactivity in clear and pigmented systems Excellent stability Good compatibility, easy to formulate | Translucent liquid | 32 | 35 | 83 | 7.0-8.5 | 6 | 1.0 |
| UCECOAT 7717 | Acrylated Polyurethane Dispersion Excellent adhesion and wood grain enhancement Low tack but not physically dry after water evaporation Good compatibility with stains (dyes and pigments) | Translucent to milky dispersion | | 40 | 87 | 6.0-7.5 | - | 1.1 |
| UCECOAT 7733 | Acrylated Polyurethane Dispersion Excellent colloidal stability Good compatibility and easy to formulate Tack-free behavior after physical drying before UV curing Outstanding hardness and scratch resistance Excellent stain and solvent resistance | Translucent to white liquid | <200 | ~38 | <125 | 7.0-8.5 | 6 | 1 |

UCECOAT® Waterborne UV Resins

| | | Typical Properties ⁽¹⁾ | | | | | | | | | |
|-----------------|--|-----------------------------------|-----------------------------|-------------------------|----------------------|---------|----------|-----------------------------|--|--|--|
| Product | Description • Key Features & Performance | Appearance | Viscosity, cP at 25°C | Solids Content, % | Particle size, nm | Hd | MFFT, °C | Density, g/ml at 25°C | | | |
| | UV Dispersions | | | | | | | | | | |
| UCECOAT 7788 | Acrylated Polyurethane Dispersion Versatile resin with optimized cost/performance level Balance of elasticity, hardness and toughness Chemical and stain resistance Nearly tack-free after physical drying | White emulsion | 219 | 40 | 87 | 6.5-8.5 | - | 1.1 | | | |
| UCECOAT 7856 | Acrylated Polyurethane Dispersion High gloss and distinctness of image (DOI)High clarity and low yellowingHigh solids with a low viscosityStenomer-free composition | Translucent to white liquid | <500 | 32 | <125 | 6.0-8.5 | ~0 | 1.1 | | | |
| UCECOAT 7891 | Acrylated Polyurethane Dispersion Excellent appearance in matte coatings Superior stability of matte formulations Excellent solvent and chemical resistance Tack-free after water evaporation | Opaque liquid | <200 | 32 | <125 | 6.0-8.5 | ~0 | 1.1 | | | |
| Waterborne | UV Solutions | | | | | | | | | | |
| UCECOAT 6560 | Aliphatic Urethane Acrylate Solution Excellent adhesion on wood Excellent wood wetting High flexibility Non-yellowing | Clear to cloudy liquid | 4,500 (25°C) | 50 | - | 7.0-8.0 | - | 1 | | | |
| UCECOAT 6570 | Waterborne Aliphatic Urethane Acrylate · Low color · High viscosity · Good water- and solvent resistance · Fast curing · Low MeHQ level | Clear to cloudy liquid | 6,000 (60°C) | 95 | - | 6.0-8.5 | - | 1.1 | | | |

⁽¹⁾ Not a specification



Does not contain intentionally added organic tin compounds

EBECRYL® LEO (Low Extractable and Odor) Resins

| | , | Typical Properties ⁽¹⁾ | | | | | | | | |
|----------------------|---|-----------------------------------|-------------------------------------|------------------------|---------------------|--------------------------|---------------------|---------------------------|----------------------------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | AcidValue, mg KOH/g | Residual AA, ppm | Residual solvent, ppm | Weight per Amine | Color, Gardner (Pt-Co) | Molecular weight, g/mol | Density, g∕ml at 25°C |
| LEO Resins | | | | | | | | | | |
| EBECRYL LEO 10101 | Self-Curing Acrylate Resin Requires no added photoinitiator Moderate viscosity | 2 | 4,000 (25°C) | <1 | <200 | <10 | - | - | 1,000 | 1.10 |
| EBECRYL LEO 10103 | Self-Curing Acrylate Resin Requires no added photoinitiator Low migration offset inks | 3 | 6,000 (25°C) | <1 | <200 | <10 | - | - | - | 1.10 |
| EBECRYL LEO 10501 | Trifunctional Diluting Acrylate • High cure response • Good flexibility | 3 | 73 (25°C) | <0.5 | 93 | 2.9 | - | (32) | 470 | 1.10 |
| EBECRYL LEO 10502 | Polymeric Tetrafunctional Acrylate High cure response Low viscosity Good flexibility High gloss | 4 | 158 (25°C) | 1.9 | 134 | 1.4 | - | 2 | 750 | 1.15 |
| EBECRYL LEO 10551 | Amine Modified Polyether Acrylate | 2.5 | 71 (25°C) | 56 | <200 | - | 1,079 | 0.3 | 500 | 1.09 |
| EBECRYL LEO 10552 | Amine Modified Polyether Acrylate · Very high cure response · Good flexibility · High gloss | 3.5 | 545 (25°C) | 40 | <200 | - | 1,438 | 0.5 | 1,000 | 1.12 |
| EBECRYL LEO 10553 | Amine Modified Polymeric Tetrafunctional Acrylate Partially based on renewable resources Good pigment wetting Good reactivity Excellent printability | 3.4 | 213 (25°C) | 28 | <200 | - | 2,004 | 0.3 | 780 | 1.12 |
| EBECRYL LEO 10601 | Difunctional Modified Epoxy Acrylate High gloss Improved flexibility Low extractables Low odor Low migration | 2 | 200,000 (25°C) 2950 (60°C) | max. 1.0 | <750 | - | - | max. 3 | - | 1.14 |
| EBECRYL LEO 10801 | Hexafunctional polyester acrylate High reactivityVery good pigment wettingVery good lithographic behavior in UV offset inks | 6 | 49,684 (25°C) | <15 | <500 | <10 | - | dark | 1,500 | 1.08 |

60 Does not contain intentionally added organic tin compounds



Made with a minimum of 10% biobased material

EBECRYL® Urethane Acrylates

| LDLCI | . Or ethane Acrylates | Typical Properties ⁽¹⁾ | | | | | | | | |
|-------------------------------|--|-----------------------------------|-----------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|-------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Diluent | Viscosity , cP | Color, Gardner (Pt-Co), [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°,°C | Density, g/ml at 25°C |
| Aliphatic U | rethane Acrylates | | | | | | | , | | |
| EBECRYL 225 | Aliphatic Urethane Acrylate High functionality resin for hardcoats Outstanding hardness Exceptional scratch and abrasion resistance Excellent steel wool (0000) scratch resistance | 10 | - | 75,500 (25°C) 1,750 (60°C) | (42) | - | 2,100 | 0.8 | - | 1.19 |
| EBECRYL 230 | Aliphatic Urethane Diacrylate High molecular weight Soft Very flexible Low Tg | 2 | - | 44014 (25°C) 3150 (60°C) | (16) | _ | 150 | 83 | -48 | 1.08 |
| EBECRYL 231 | Aliphatic Urethane Diacrylate Light color Low viscosity Improved flexibility and toughness Reduced yellowing | 2 | MMA (20%) | 1,427 (25°C) | (8) | - | - | - | - | 1.06 |
| EBECRYL 242N | Aliphatic Urethane Diacrylate Excellent flexibility Good adhesion to metal Good corrosion resistance | 2 | IBOA (30%) | 21,093 (25°C) 1850 (60°C) | 0.2 | - | 4,045 | 186 | 46 | 1.1 |
| EBECRYL 248 | Aliphatic Urethane Diacrylate Good flexibility and toughness, Excellent abrasion resistance Good water, thermal and electrical resistance Non-yellowing | 2 | HDDA (10%) | ~8,000 (60°C) | 0.2 | - | 3,700 | 60 | - | 1.12 |
| EBECRYL 249 | Aliphatic Urethane Methacrylate Excellent non-yellowing High scuff and abrasion resistance Good exterior durability | 2 | - | 2,150 (60°C) | <u>≤</u> 1 | - | 1,856 | 1.2 | 78 | 1.08 |
| EBECRYL 250 | Aliphatic Urethane Diacrylate Light color Relative low viscosity Improved flexibility Non-yellowing | 2 | - | 34,000 | (50) | - | 2.4 | 150 | -59 | 1.08 |
| EBECRYL 264 | Aliphatic Urethane Triacrylate Toughness Very good abrasion resistance Good stain resistance Flexible | 3 | HDDA (15%) | 47,384 (25°C) 1,850 (60°C) | 0.4 | - | 4,200 | 37 | 42 | 1.12 |
| EBECRYL 265 | Aliphatic Urethane Triacrylate | 3 | TPGDA (25%) | 36486 (25°C) 1530 (60°C) | 0.3 | - | 4,500 | 44 | 38 | 1.13 |
| EBECRYL 267 | Aliphatic Urethane AcrylateExcellent hardness, abrasion, and stain resistanceGood flexibilityLow viscosity | 3 | - | 2,500 (25°C) | max. 1 | - | 2,000 | 0.7 | 86 | 1.14 |
| EBECRYL 270 ⁽²⁾ | Aliphatic Urethane Diacrylate Good flexibility Relatively soft Adhesion | 2 | EB 145 (<2%) | 132,500 (25°C) 3084 (60°C) | 0.2 | - | 1,200 | 87 | -27 | 1.1 |
| EBECRYL 284 | Aliphatic Urethane Diacrylate Excellent exterior durability Tough Flexible | 2 | HDDA (12%) | 64,250 (25°C) 2,270 (60°C) | 0.2 | - | 5,900 | 58 | 50 | 1.18 |

| | | | | Турі | cal Pro _l | pertie | S ⁽¹⁾ | | | |
|--------------------------------|--|---------------|-----------------|--------------------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|-------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Diluent | Viscosity, cP | Color, Gardner (Pt-Co), [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°, ℃ | Density, g/ml at 25°C |
| Aliphatic Ur | ethane Acrylates | | | | | | | | | |
| EBECRYL® 285 | Aliphatic Urethane Diacrylate · Good flexibility and toughness · Good exterior durability · Non-yellowing | 2 | TPGDA (25%) | 23,000 (25°C) | 2 | - | 5,950 | 56 | 42 | 1.13 |
| EBECRYL 286 | Aliphatic Urethane Triacrylate Excellent abrasion resistance and stain resistance Good flexibility and toughness Good adhesion | 2 | TPGDA (25%) | 23,200 (25°C) | 0.3 | - | 6,000 | 56 | 42 | 1.13 |
| EBECRYL 294/25 | Aliphatic Urethane Triacrylate • Excellent abrasion resistance • Outstanding stain resistance • Superior toughness | 3 | HDDA (25%) | 260,000 (25°C) 7,253 (60°C) | 0.2 | - | 9,230 | 1.6 | 42 | 1.11 |
| EBECRYL 1271 | Aliphatic Urethane Diacrylate Light color Good flexibility Good adhesion Non-yellowing Exterior durability Abrasion resistance | 2 | - | 99,050 (25°C) 3,560 (60°C) | (<75) | - | 2,020 | 54 | 19 | 1.04 |
| EBECRYL 1290 ⁽²⁾ | Aliphatic Urethane Hexaacrylate Good reactivity Excellent hardness Outstanding scratch resistance | 6 | - | 85,000 (25°C) 2,040 (60°C) | 0.2 | - | 6,700 | 2 | - | 1.19 |
| EBECRYL 1291 | Aliphatic Urethane Hexaacrylate • Excellent scratch and abrasion resistance • High gloss • High surface hardness • Non-yellowing | 6 | - | 1,900 (60°C) | (75) | - | 1,070 | 1 | 80 | 1.16 |
| EBECRYL 4100 ⁽²⁾ | Aliphatic Urethane Triacrylate · Good adhesion to various plastics · Very tough and flexible · Exterior durability | 3 | - | 6,800 (23°C) | (98) | 0.9 | 2,175 | 27 | 22 | 1.13 |
| EBECRYL 4201 | Aliphatic Urethane Tetraacrylate Good chemical and mechanical resistance properties Outstanding abrasion resistance Good UV reactivity | 4 | - | ~8,000 (23°C) | (<150) | <2 | 870 | 15 | 12 | 1.13 |
| EBECRYL 4265 | Aliphatic Urethane Acrylate • Very low inherent viscosity • Good chemical and wear resistance | 3.4 | - | ~800 (23°C) | (<200) | 1 | - | - | - | 1.12 |
| EBECRYL 4491 | Aliphatic Urethane Diacrylate • Very high flexibility and elongation • Provides elastomeric cured films | 2 | BOMA (20%) | 60,000- 120,000 (23°C) | (<200) | 2 | 725 | 250 | - | 1.13 |
| EBECRYL 4513 | Aliphatic Urethane Triacrylate Tough but flexible Chemical and wear resistant Non-yellowing | 3 | - | ~25,000 (23°C) | (100) | 1 | 1,015 | 30 | - | 1.15 |
| EBECRYL 4587 | Aliphatic Urethane Acrylate · Water emulsifiable aliphatic urethane acrylate · Good chemical and wear resistance | 3.4 | - | ~1,500 (23°C) | [1] | 5 | - | - | - | 1.13 |

Does not contain intentionally added organic tin compounds



Made with a minimum of 10% biobased material

 $^{^{(1)}}$ Not a specification $^{(2)}$ Version available that does not contain intentionally added organic tin compounds

EBECRYL® Urethane Acrylates

| | . Orethane Acrylates | Typical Properties ⁽¹⁾ | | | | | | | | |
|-----------------|---|-----------------------------------|------------------------------------|--------------------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|--------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Diluent | Visco sity , cP | Color, Gardner (Pt-Co), [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°, °C | Density, g/ml at 25°C |
| Aliphatic Ur | rethane Acrylates | | | | | | | | | |
| EBECRYL 4654 | Aliphatic Urethane Triacrylate | 3 | - | 920 (25°C) | (21) | 5 | - | - | - | 1.02 |
| EBECRYL 4666 | Aliphatic Allophanate Urethane Tetraacrylate High UV reactivity Good abrasion and scratch resistance Hardness and weatherability | 4 | - | ~60,000 (23°C) | (100) | - | 9,425 | 4 | 65 | 1.18 |
| EBECRYL 4680 | Aliphatic Urethane Tetraacrylate Good UV reactivity High abrasion resistance Good chemical resistance | 4 | HDDA (20%) | ~29,000 (23°C) | (150) | 1 | 2,900 | 2 | - | 1.11 |
| EBECRYL 4690 | Aliphatic Urethane Acrylate Biobased Very good mechanical properties High abrasion resistance Good chemical resistance Low yellowing Robust outdoor resistance (weathering) | >4 | HDDA (~28%) | ~25,000- 33,000 (23°C) | <75 Apha | Max. 1 | 2,320 | 1.5 | 82 | ~1.1 |
| EBECRYL 4738 | Aliphatic Allophanate Urethane Triacrylate High UV reactivityGood abrasion and scratch resistanceHardness and weatherability | 3 | - | ~40,000 (23°C) | (<200) | 0.2 | 5,800 | 3 | 80 | 1.15 |
| EBECRYL 4740 | Aliphatic Allophanate Urethane Triacrylate High UV reactivityLow viscosityHigh resistance to yellowing | 3 | - | ~8,000 (23°C) | (<300) | 0.2 | 3,190 | 17 | 30 | 1.14 |
| EBECRYL 4833 | Aliphatic Urethane Diacrylate Good adhesion to various plastics Very tough and flexible Exterior durability | 2 | N-vinyl-2- pyrrolidone (10%) | 110,000 (25°C) 2,817 (60°C) | 0.4 | - | 7,800 | 120 | 47 | 1.11 |
| EBECRYL 4858 | Aliphatic Urethane Diacrylate Low intrinsic viscosity Abrasion, chemical and impact resistance Flexibility Toughness Exterior durability | 2 | - | 7,170 (25°C) | 0.4 | - | 5,700 | 3.5 | 54 | 1.14 |
| EBECRYL 4859 | Aliphatic Urethane Dimethacrylate Produces hard polymers without high crosslinking High T _g Low intrinsic viscosity Tough and impact resistant Exterior durability | 2 | - | 9,300 (25°C) | (14) | - | 2,250 | 0.6 | 124 | 1.14 |
| EBECRYL 4883 | Aliphatic Urethane Diacrylate Good flexibility Abrasion resistance Exterior durability Adhesion | 2 | TPGD (15%) | 161,000 (25°C) 4,904 (60°C) | 0.3 | - | 2,900 | 83 | 4 | 1.1 |
| EBECRYL 4900 | Aliphatic Urethane Diacrylate Low viscosity Tack free after solvent evaporation High hardness Excellent cure response | 2 | Butyl acetate (40%) | ~1,500 (25°C) | <1 | - | - | - | - | 1.05 |

| | | | | Туріс | al Prop | ertie | S ⁽¹⁾ | | | |
|--------------------------------|--|---------------|-------------------------------|-------------------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|-------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Diluent | Viscosity, cP | Color, Gardner (Pt-Co), [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°,gT | Density, g/ml at 25°C |
| Aliphatic Ur | ethane Acrylates | | | | | | | | | |
| EBECRYL® 4950 | Aliphatic Urethane Diacrylate Low viscosity Excellent cure response Excellent stain and chemical resistance Good scratch resistance | 3 | Butyl acetate (20%) | ~1,700 (25°C) | <100 | 6.2 | - | - | - | 1.10 |
| EBECRYL 5129 | Aliphatic Urethane Hexaacrylate Fast cure response Scratch and abrasion resistance Improved flexibility Chemical resistance | 6 | - | 15,780 (25°C) 733 (60°C) | 0.3 | - | 9,100 | 4 | 30 | 1.18 |
| EBECRYL 5130 | Aliphatic Urethane Hexaacrylate Fast cure response Scratch and abrasion resistance Chemical resistance Improved flexibility | 6 | - | 430 (60°C) | max. 1 | - | - | - | - | - |
| EBECRYL 8209 | Aliphatic Urethane Acrylate Dual functionality, reactive with NCO Primary hydroxyl groups Good scratch and abrasion resistance Excellent reactivity | 3.9 | - | 4,000 (25°C) | < 2 | 80- 105 | - | - | - | 1.12 |
| EBECRYL 8210 ⁽²⁾ | Aliphatic Urethane Acrylate Dual functionality, reactive with NCO Primary hydroxyl groups Good scratch and abrasion resistance Excellent reactivity | 3.5 | - | 3,746 (25°C) | 0.3 | - | 6,400 | 2 | 68 | - |
| EBECRYL 8301-R | Aliphatic Urethane Hexaacrylate Good reactivity Excellent hardness Outstanding scratch resistance Exterior durability | 6 | - | 24,600 (25°C) 251 (65.5°C) | 0.2 | - | 7,750 | 3 | - | 1.16 |
| EBECRYL 8314 | Aliphatic Urethane Tetracrylate Outstanding toughness Excellent abrasion resistance & weatherability Thermoformable after cure (small to medium draws) Good adhesion, hardness, and flexibility Non-yellowing | 4 | IBOA (8%) HPMA (12%) | 14,000 (25°C) | <1 | - | 6,000 | 110 | 90 | 1.13 |
| EBECRYL 8315 | Aliphatic Urethane Tetraacrylate Excellent toughness & abrasion resistance Thermoformable after cure Outstanding weatherability Non-yellowing Self-healing properties of minor scratches | 4 | HPMA (20%) | 9,200 (25°C) | <2 | - | 5,000 | 100 | 90 | 1.13 |
| EBECRYL 8402 ⁽²⁾ | Aliphatic Urethane Diacrylate Relatively low viscosity Good adhesion Outstanding exterior durability | 2 | - | 14,830 (25°C) 507 (60°C) | 0.2 | - | 3,350 | 50 | 14 | 1.12 |



 $\begin{picture}(60,0) \put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){100$



Made with a minimum of 10% biobased material

⁽²⁾ Version available that does not contain intentionally added organic tin compounds

EBECRYL® Urethane Acrylates

| EBECKYL | _ Urethane Acrylates | Typical Properties ⁽¹⁾ | | | | | | | | |
|-----------------|--|-----------------------------------|----------------|--------------------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|--------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Diluent | Viscosity, cP | Color, Gardner (Pt-Co), [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | Tg, °C | Density, g/ml at 25°C |
| Aliphatic Ur | ethane Acrylates | | | | | | | | | |
| EBECRYL 8405 | Aliphatic Urethane Tetraacrylate Outstanding exterior durability Excellent abrasion resistance Good flexibility | 4 | HDDA (20%) | 85,000 (25°C) 4,428 (60°C) | 0.2 | - | 4,000 | 29 | 30 | 1.13 |
| EBECRYL 8409 | Aliphatic Urethane Diacrylate Relatively low viscosity Excellent adhesion to difficult surfaces Outstanding exterior durability | 2 | - | 12,500 (25°C) | < 2 | - | - | - | - | 1.16 |
| EBECRYL 8411 | Aliphatic Urethane Diacrylate Outstanding extensibility and flexibility Useful in screen inks Good abrasion resistance Good exterior durability | 2 | IBOA (20%) | 149,500 (25°C) 7,779 (60°C) | 0.3 | - | 1,170 | 320 | -18 | 1.13 |
| EBECRYL 8413 | Aliphatic Urethane Diacrylate Excellent extensibility, 550% elongation at break Good milling properties Well suited for thermoformable coatings and inks Low shrinkage Good adhesion | 2 | IBOA (~33%) | 32,800 (60°C) | - | - | 2,200 | 550 | - | 1.04 |
| EBECRYL 8501 | Aliphatic Urethane Acrylate Automotive refinish and general metal Excellent reactivity and surface cure under lowintensity UV Good wetting of inert and reactive fillers Excellent adhesion to automotive substrates | 3 | IBOA (15%) | 36,400 (25°C1,40 0 (60°C) | 0.8 | - | 4,200 | 28 | - | 1.1 |
| EBECRYL 8602 | Aliphatic Urethane Acrylate • Excellent surface hardness and chemical resistance • Excellent weatherability compared to traditional hardcoats | 9 | - | 86,000 (25°C) 3,068 (60°C) | (32) | - | 5,400 | 1 | - | 1.16 |
| EBECRYL 8605 | Aliphatic Urethane Tetramethacrylate Excellent exterior durabilityToughnessGood surface hardness | 4 | HDDA (15%) | 24,000 (60°C) | <2 | - | 9,000 | 4 | 90 | 1.13 |
| EBECRYL 8606 | Aliphatic Urethane Tetracrylate Outstanding toughness Excellent abrasion resistance & weatherability Thermoformable after cure (small to medium draws) Flexibility with good adhesion Non-yellowing | 4 | - | 4,500 (60°C) | <1 | - | 5,000 | 70 | - | 1.13 |
| EBECRYL 8702 | Aliphatic Urethane Hexaacrylate Good toughness Excellent abrasion and stain resistance Impact resistance Non-yellowing Good exterior durability | 6 | - | 364,000 (25°C) 5,800 (60°C) | 0.4 | - | 4,700 | 10 | 28 | 1.13 |

| | | | | Туріс | al Pro | pertie | S ⁽¹⁾ | | | |
|--------------------------------|--|---------------|----------------------------------|--|-------------------------------------|-------------------------|--------------------------|--------------------------|-------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Diluent | Viscosity, cP | Color, Gardner (Pt-Co), [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°, ℃ | Density, g/ml at 25°C |
| Aliphatic Ur | ethane Acrylates | | | | | | | | | |
| EBECRYL® 8800 | Aliphatic Urethane Acrylate Regulation friendly for tin, heavy metals, and quinones Excellent abrasion resistance Good toughness and flexibility | 2.5 | EOEOEA (10%) | 9,000 (65°C) | < 2 | - | 4,148 | 21.8 | 48 | 1.05 |
| EBECRYL 8800-20R | Aliphatic Urethane Acrylate · Abrasion resistance · Toughness · Exterior durability | 2.5 | TPGDA (20%) EOEOEA (8%) | 44,588 (25°C) 1,722 (65.5°C) | 0.2 | - | 3,400 | 45 | 59 | 1.01 |
| EBECRYL 8804 ⁽²⁾ | Aliphatic Urethane Diacrylate | 2 | - | 320,0000 (25°C) 14,649 (65.5°C) | 0.4 | - | 3,000 | 103 | 24 | 1.14 |
| EBECRYL 8807 ⁽²⁾ | Aliphatic Urethane Diacrylate | 2 | - | 258,600 (25°C) 7,476 (60°C) | 0.2 | - | 1,950 | 54 | 32 | 1.05 |
| EBECRYL 8809 | Aliphatic Urethane Diacrylate Light color Excellent exterior durability Excellent toughness Non-yellowing | 2 | EBECRYL 10501 (5%) | 187,000 (25°C) 16,000 (60°C) | <1 | - | 5,000 | 24 | 67 | 1.18 |
| EBECRYL 8810 | Aliphatic Urethane Diacrylate Regulation friendly for tin, heavy metals, and quinones Good abrasion resistance Excellent flexibility and toughness Non-yellowing | 2 | - | 30,000 (60°⊂) | <1 | - | 3,279 | 48 | 54 | 1.16 |
| EBECRYL 8812 | Aliphatic Urethane Acrylate Regulation friendly for tin, heavy metals, and quinones Excellent abrasion resistance Good toughness and flexibility | 2.5 | EOEOEA (10%) | 5,000- 15,000 (65.5°C) | 1 | - | - | - | - | 1.05 |
| EBECRYL 8894 | Aliphatic Urethane Acrylate Excellent humidity resistance Excellent toughness Good abrasion resistance | 4 | Butyl acetate (20%) | 65,000 (25°C) | <1 | - | 4,061 | 37 | 60 | 1.07 |
| EBECRYL 8896 | Aliphatic Urethane Acrylate Tunable haptics ("rubbery" to "velvet") High flexibility Good abrasion resistance | 3 | Butyl acetate (20%) | 10,000 (25°C) | <1 | - | 479 | 50 | -26 | 1.06 |

 $^{^{\}mbox{\tiny (2)}}$ Version available that does not contain intentionally added organic tin compounds



Made with a minimum of 10% biobased material

⁽¹⁾ Not a specification

EBECRYL® Urethane Acrylates

| | a di deniante y lei y laces | | | Т | ypical Pr | opertie | S ⁽¹⁾ | | | |
|------------------|--|----------------------------------|----------------------------|-------------------|---------------------------|---------|--------------------------|--------------------------|--------|--------------------------|
| Product | Description • Key Features & Performance | Functionality, Acrylate (NCO) | Diluent | Viscosity, cP | Color, Gardner (Pt-Co) | NCO, % | Tensile Strength, psi | Tensile Elongation, % | Tg, °C | Density, g/ml at 25°C |
| Isocyanate F | unctional Urethane Acrylates | | | | | | | | | |
| EBECRYL® 4150 | Aliphatic Urethane Acrylate Isocyanate functional Dual cure 2-component systems 1-component systems with improved adhesion | 1 (2) | - | ~10,000 (23°C) | (<150) | ~13 | - | - | - | 1.18 |
| EBECRYL 4155 | Aliphatic Urethane Acrylate Isocyanate functionality Dual cure 2-component systems 1-component system with improved adhesion | - | - | ~5,500 (25°C) | (<100) | ~9 | - | - | - | 1.10 |
| EBECRYL 4396 | Aliphatic Urethane Acrylate Isocyanate functional Dual cure 2-component systems 1-component systems with improved adhesion | 0.8 (2.2) | - | ~16,000 (23°C) | (<150) | ~7.5 | - | - | - | 1.10 |
| EBECRYL 4397 | Aliphatic Urethane Acrylate Isocyanate functional Dual cure 2-component systems 1-component systems with improved adhesion | 1 (3) | - | ~11,000 (25°C) | (<150) | ~6.7 | - | - | - | 1.10 |
| EBECRYL 4510 | Aliphatic Urethane Acrylate Isocyanate functional Dual cure 2-component systems 1-component systems with improved adhesion | 1.5 (1.5) | Butyl Acetate (~10%) | ~20,000 (23°C) | (<100) | ~7 | - | - | - | 1.16 |



⁽²⁾ Version available that does not contain intentionally added organic tin compounds



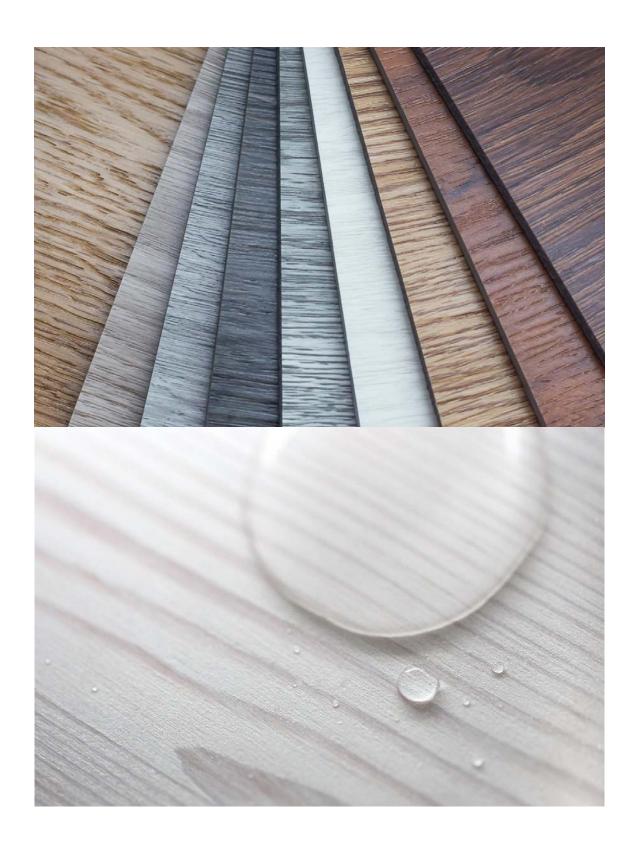


EBECRYL® Urethane Acrylates

| LDLCITTL | or ethane her ylates | Typical Properties ⁽¹⁾ | | | | | | | | | | |
|-------------------------------|--|-----------------------------------|---------------|--------------------------------------|---------------------------|-------------------------|--------------------------|--------------------------|-------|--------------------------|--|--|
| Product | Description • Key Features & Performance | Functionality | Diluent | Viscosity, cP | Color, Gardner (Pt-Co) | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | ک، 'و | Density, g/ml at 25°C | | |
| Aromatic Ur | ethane Acrylates | | | | | | | | | | | |
| EBECRYL 210 | Aromatic Urethane Diacrylate Low odor Adhesion to various substrates Good flexibility Light color | 2 | - | 3,600-4,600 (60°C) | 2 | - | 2,218 | 64 | -19 | 1.11 | | |
| EBECRYL 220 ⁽²⁾ | Aromatic Urethane Hexaacrylate High reactivityOutstanding hardnessExcellent scratch resistanceChemical resistance | 6 | - | 28,485 (25°C) 660 (60°C) | 0.3 | - | 8,000 | 3 | 49 | 1.22 | | |
| EBECRYL 2221 | Aromatic Urethane Hexaacrylate Contains no pentaerythritol acrylate High reactivity High hardness and scratch resistance Good solvent resistance | 6 | - | 21,000 (25°C) | <2 | - | - | - | - | 1.18 | | |
| EBECRYL 4827 | Aromatic Urethane Diacrylate Flexibility Impact resistance Adhesion | 2 | - | 238,000 (25°C) 4,241 (60°C) | 0.2 | - | 900 | 78 | -6 | 1.1 | | |
| EBECRYL 4849 | Aromatic Urethane Diacrylate Very good abrasion resistance Toughness Flexibility | 2 | HDDA (15%) | 74,170 (25°C) 3,435 (60°C) | 0.6 | - | 2,700 | 51 | 29 | 1.14 | | |



⁽²⁾ Version available that does not contain intentionally added organic tin compounds



EBECRYL® Polyether/Polyester Acrylates & Diluted Polyesters

| | | Typical Properties ⁽¹⁾ | | | | | | | | | | |
|----------------|--|-----------------------------------|--------------------------|---------------------------------------|-------------------------|---------------------|--------------------------|--------------------------|--------|--------------------------|--|--|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner (Pt-Co) [lodine] | Acid Value, mg KOH/g | Weight per Amine | Tensile Strength, psi | Tensile Elongation, % | J°, °L | Density, g/ml at 25°C | | |
| Polyether/ | Polyester Acrylates & Diluted Polyesters | - | | | | | | | | - | | |
| EBECRYL 80 | Amine Modified Polyether Tetraacrylate Outstanding reactivity Moderate viscosity High gloss Good chemical resistance | 4 | 2,822 (25°C) | (53) | - | 920 | 6,800 | 7 | 50 | 1.04 | | |
| EBECRYL 81 | Amine Modified Polyether Acrylate Good reactivity Very low viscosity High gloss | 2.5 | 92 (25°C) | 0.5 | - | 1,079 | 790 | 8 | -18 | 1.08 | | |
| EBECRYL 83 | Amine Modified Polyether Acrylate Very good reactivity Low viscosity High gloss Chemical resistance | 3.5 | 515 (25°C) | 0.5 | - | 1,368 | 2,000 | 13 | 6 | 1.08 | | |
| EBECRYL 85 | Amine Modified Polyether Acrylate Low viscosity High reactivity Chemical resistance Low residual odor | 3.6 | 150 (25°C) | 0.3 | - | 1,403 | - | - | - | 1.12 | | |
| EBECRYL 367 | Adhesion Promoting Resin Low viscosity Low color Low acidity | - | 1,500 (25°C) | - | - | - | - | - | - | 1.10 | | |
| EBECRYL 415 | Diluted Chlorinated Polyester · 35% TMPEOTA · BPA free · High reactivity · Good Adhesion to plastics | - | <u>+</u> 1,700 (60°C) | < 5 | < 15 | - | - | - | - | - | | |
| EBECRYL 416 | Diluted Chlorinated Polyester | - | <u>+</u> 1,800 (60°C) | < 3 | < 15 | - | - | - | - | - | | |
| EBECRYL 417 | Diluted Chlorinated Polyester | - | <u>+</u> 2,000 (60°C) | < 2 | < 15 | - | - | - | - | - | | |
| EBECRYL 418 | Diluted Chlorinated Polyester | - | ±1,800 (60°C) | < 3 | < 15 | - | - | - | - | - | | |
| EBECRYL 441 | Modified Chlorinated Polyester · 32% TMPTA · BPA free · Medium to good pigment wetting · High Reactivity/Cure speed · Good adhesion | - | 1,900 (60°C) | < 2 | - | - | - | - | - | 1.14 | | |

⁽¹⁾ Not a specification



Made with a minimum of 10% biobased material

⁽²⁾ Produced with materials derived from Bisphenol-A

| | | Typical Properties ⁽¹⁾ | | | | | | | | |
|-------------------------------|---|-----------------------------------|---------------------------------------|---------------------------------------|-------------------------|---------------------|--------------------------|--------------------------|---------------------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner (Pt-Co) [lodine] | Acid Value, mg KOH/g | Weight per Amine | Tensile Strength, psi | Tensile Elongation, % | ٦ _g , °C | Density, g/ml at 25°C |
| Polyether/F | Polyester Acrylates & Diluted Polyesters | | | | | | | | | |
| EBECRYL® 444 | Diluted Chlorinated Polyester • 40% OTA-480 • Good adhesion • Fast UV cure response • Good lithographic behavior • BPA and Sn free | 3 | 1,500 (60°C) | <3 | <25 | - | - | - | - | 1.26 |
| EBECRYL 445 | Diluted Chlorinated Polyester · 40% TMPTA · Good adhesion · Fast UV cure response · Good lithographic behavior · BPA and Sn free | 3 | 8,5600 (25°C) 1,499 (60°C) | 1.2 | 19.4 | - | 2,800 | 5 | 37 | 1.26 |
| EBECRYL 450 | Fatty Acid Modified Polyester Hexaacrylate Good pigment wetting Good reactivity Good lithographic behavior | 6 | 8,278 (25°C) 420 (60°C) | - | 11.8 | - | 4,300 | 4 | 17 | 1.12 |
| EBECRYL 452 | Polyester Tetraacrylate • Excellent pigment wetting properties • Low viscosity • Good cure response | 4 | 769 (25°C) | - | 7 | - | - | - | - | 1.11 |
| EBECRYL 524 | Diluted Acidic Polyester · 30% HDDA · Good adhesion · Moderate flexibility | 2 | 61,234 (25°C) 2,000 (60°C) | (45) | 33.9 | - | 1,000 | 30 | - | 1.22 |
| EBECRYL 546 | Polyester Acrylate | - | ~35,000 (25°C) ~5,000 (60°C) | ~1.5 | <10 | - | - | - | - | 1.1 |
| EBECRYL 571 | Diluted Polyester Oligomer Developed for heat shrink sleeve inks Excellent adhesion to shrink PVC, PET-G, SBS and PLA Excellent wrinkle resistance 40% DPGDA Shrink and contour without discoloration | 2 | 9,170 (25°C) | 1 | 5.2 | - | 1,160 | 20 | 44 | 1.14 |
| EBECRYL 573 | Diluted Polyester Oligomer Low relative viscosity Good flexibility/shrink behavior (gloss retention) Good adhesion on plastics: PVC, PET-G, OPS Good printability Excellent wrinkle resistance | | ~4,000 | <u><</u> 4 | <u><</u> 15 | | 5 | 40 | 3 | ~1.1 |
| EBECRYL 657 | Polyester Tetraacrylate • Good pigment wetting • Excellent lithographic behavior • Good anti-misting properties | 4 | 103,500 (25°C) 3,585 (60°C) | - | 12.6 | - | 4,300 | 23 | 33 | 1.03 |
| EBECRYL 809 | Modified Polyester Acrylate Moderate viscosity Good flexibility Surface hardness Toughness | 3.5 | 36,000 (25°C) 1,276 (60°C) | 0.6 | 7.4 | - | 3,500 | 18 | 54 | 1.14 |
| EBECRYL 810 | Polyester Tetraacrylate | 4 | 453 (25°C) | 0.5 | 12.5 | - | 6,000 | 6 | 31 | 1.09 |
| EBECRYL 812 ⁽²⁾ | Polyester Acrylate Polyester Acrylate Pigment grind vehicle for flexo inks Outstanding color development Good adhesion to plastics and papers | 3.5 | 9,320 (25°C) 340 (60°C) | 1.5 | 8 | - | 5,700 | 2 | 72 | 1.14 |

EBECRYL® Polyether/Polyester Acrylates & Diluted Polyesters

| | | Typical Properties ⁽¹⁾ | | | | | | | | |
|-------------------------------|--|-----------------------------------|-------------------------------------|---------------------------------------|-------------------------|---------------------|--------------------------|--------------------------|--------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner (Pt-Co) [lodine] | Acid Value, mg KOH/g | Weight per Amine | Tensile Strength, psi | Tensile Elongation, % | Tg, °C | Density, g/ml at 25°C |
| Polyether/ | Polyester Acrylates & Diluted Polyesters | | | | | | | | | |
| EBECRYL 820 | Polyester Hexaacrylate Low viscosity Excellent pigment wetting properties Good cure response | 6 | 580 (25°C) | 7 | 4 | - | - | - | - | 1.16 |
| EBECRYL 830 | Polyester Hexacrylate High abrasion resistance Good hardness and solvent resistance Light color | 6 | +50,000 (25°C) | <3 | max 30 | - | 11,170 | 4 | - | 1.18 |
| EBECRYL 838 | Polyester Hexaacrylate | 6 | 50,300 (25°C) 990 (65°C) | 0.1 | 24 | - | 12,500 | 5 | 60 | 1.18 |
| EBECRYL 846 | Modified Polyester Acrylate Excellent reactivity Good water balance Good printability | 4 | 35,000- 55,000 (25°C) | _ | 10 | - | - | - | - | 1.14 |
| EBECRYL 854 | Polyester Triacrylate Recommended for parquet floor and furniture Excellent adhesion Good abrasion resistance | 3 | ~40,000 (25°C) | <2 | <5 | - | 3,335 | 20 | 55 | 1.19 |
| EBECRYL 856 | Hybrid Polyester Acrylate Moderate viscosity Good reactivity | 2.5 | ~3,250 (25°C) | 2-3 | - | - | 2,901 | 1 | 99 | 1.15 |
| EBECRYL 870 | Fatty Acid Modified Polyester Hexaacrylate Rheology suited for lithographic inks Good pigment wetting High reactivity Good solvent resistance | 6 | 43,070 (25°C) 2,340 (60°C) | - | 11.3 | - | 4,,500 | 5 | 41 | 1.08 |
| EBECRYL 871 ⁽²⁾ | Lithographic Ink Varnish Excellent pigment wetting Good water balance Good reactivity Low misting Excellent printability | 6 | 47,450 (25°C) | 5.5 | 7.3 | - | 5,100 | 4 | 23 | 1.1 |
| EBECRYL 875 | Lithographic Ink Varnish Wet or dry offset inks to be printed on plastics Excellent water balance Excellent adhesion to many plastic substrates Neither chlorinated nor acidic in nature Very low misting Low odor | 3 | 64,000 (25°C) 1,700 (60°C) | - | 0.9 | - | 4,000 | 1 | 70 | 1.14 |
| EBECRYL 876 | Polyester Acrylate BPA free alternative for OPVs Fast UV/EB cure response Excellent chemical resistance High gloss High surface hardness | 2.2 | 8,800 (25°C) | <1 | - | - | 2,900 | 16 | 36 | 1.15 |
| EBECRYL 888 | Polyester Acrylate Good adhesion Good abrasion resistance High flexibility Excellent ink receptivity | 3.5 | 2,200- 3,200 (25°C) | < 1 | - | - | - | - | - | 1.19 |

⁽¹⁾ Not a specification



⁽²⁾ Produced with materials derived from Bisphenol-A

| | | Typical Properties [⊕] | | | | | | | | |
|-----------------|---|---------------------------------|------------------|---------------------------------------|-------------------------|---------------------|--------------------------|--------------------------|-------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner (Pt-Co) [lodine] | Acid Value, mg KOH/g | Weight per Amine | Tensile Strength, psi | Tensile Elongation, % | Tg,°C | Density, g/ml at 25°C |
| Polyether/F | Polyester Acrylates & Diluted Polyesters | | | | | | | | | |
| EBECRYL® 893 | Modified Polyester Acrylate For UV curable field applied floor coatings Resistant to yellowing upon cure and aging Low viscosity Fast cure Adhesion, hardness, and scratch resistance Good chemical and solvent resistance High gloss | 3.5 | 580 (25°C) | 0.4 | - | - | 1,422 | 2.7 | - | 1.11 |
| EBECRYL 898 | Polyester Tetraacrylate Provides outstanding matte effect Low viscosity Fast cure Toughness and adhesion High surface hardness | 4 | 4,000 (25°C) | white | <20 | - | 1,247 | 1.4 | 65 | 0.8 |
| EBECRYL 1859 | High Reactivity Polyester Acrylate Developed for high speed UV, HUV, UV LED, and EB Cured offset lithographic inks Excellent pigment wetting including carbon black Excellent ink water balance BPA Free | 6 | 36,000 (25°C) | <12 | 3 | - | - | _ | _ | 1.10 |
| EBECRYL 1885 | Tin Free Polyester Triacrylate • Excellent abrasion resistance • High flexibility • Good reactivity • Moderateviscosity | 3 | 35,963 (25°C) | 0.3 | 7.6 | - | 508 | 44 | 21 | 1.19 |
| EBECRYL 4175 | Hard Unsaturated Wax-free Polyester Resin 25% DPGDA Medium viscosity Light color Primers and coatings for wood | - | 16,350 (23°C) | [3] | 18 | - | 2,480 | 6 | - | 1.15 |
| EBECRYL 4381 | Unsaturated Polyester Resin 30% DPGDA Medium viscosity Light color Primers and coatings for wood | - | 12,000 (23°C) | [3] | 14 | - | 1,885 | 12 | - | 1.15 |
| EBECRYL 4744 | Polyester Triacrylate Balanced properties suitable for coatings on wood, paper and film Medium viscosity Light color | 3 | ~5,500 (25°C) | (<300) | <3 | - | 2,465 | 10 | 23 | 1.15 |
| EBECRYL 5781 | Bio-based Aliphatic Diacrylate Low viscosity High reactivity High Tg Low shrinkage High renewable content (57%) | 2 | ~450 (25°C) | <4 | - | - | 1,740 | <1 | 162 | 1.26 |
| EBECRYL 5850 | Bio-based Aliphatic Diacrylate Medium viscosity High reactivity Excellent balance of hardness and flexibility High Tg High renewable content (56%) Especially effective in UV LED formulations | 2 | ~5,000 (25°C) | <5 | - | - | 3,625 | 1 | 115 | 1.28 |

M Does not contain intentionally added organic tin compounds

Made with a minimum of 10% biobased material

EBECRYL® Acrylic Acrylates

| | | Typical Properties ⁽¹⁾ | | | | | | | | |
|-----------------|--|-----------------------------------|------------------------------|---------------------|---------------------------|-----------------|--------------------------|--------------------------|-------|--------------------------|
| Product | Description • Key Features & Performance | Acid Value, mg KOH/g | Color, Gardner (Pt-Co) | Epoxy Content, % | Non-volatile matter, % | Viscosity, cP | Tensile Strength, psi | Tensile Elongation, % | J°,°C | Density, g/ml at 25°C |
| Acrylated Acry | ylic | | | | | | | | | |
| EBECRYL 1200 | Acrylated Acrylic High MW resin 55% solids in butyl acetate Physically dry after solvent evaporation Good adhesion, especially for wood Excellent chemical and stain resistance OH functionality reactive with polyisocyanates | <10 | <2 | <0.64 | 55 | 3,000 (23°C) | 1,421 | 0.4 | 115 | 1.07 |
| EBECRYL 1205 | OH Functional Acrylic Acrylate High MW resin ~48% solids in butyl acetate Physically dry after solvent evaporation Excellent adhesion; chemical, stain resistance OH functionality reactive with polyisocyanates OH value ~75 | | (~60) | - | ~52 | 1,000 (23°C) | - | - | - | 1.01 |

⁽¹⁾ Not a specification

EBECRYL® Polymer/Diluent Blends

| LBLCITTL | l olymen Black Blends | Typical Properties ⁽¹⁾ | | | | | | | | | |
|-----------------|---|-----------------------------------|---------------------------------|-------------------------------------|-------------------|--------------------------|--------------------------|--------------------|--------------------------|--|--|
| Product | Description • Key Features & Performance | Functionality | Diluting Acrylate | Viscosity, cP | Color, Gardner | Tensile Strength, psi | Tensile Elongation, % | T _g ,°C | Density, g/ml at 25°C | | |
| Polymer/Dili | uent Blends | | | | | | | | | | |
| EBECRYL 303 | Diluted Hydrocarbon Polymer Light color Low viscosity Improved adhesion Good exterior durability | 2 | HDDA (45%) | 577 (25°C) | 0.2 | - | - | - | 1.10 | | |
| EBECRYL 745 | Diluted Acrylic Polymer • Excellent substrate adhesion • Intercoat adhesion • Flexibility | 2 | HDDA (23%) TPGDA (23%) | 22,479 (25°C) 1,900 (60°C) | 1.5 | 1,900 | 52 | 30 | 1.05 | | |
| EBECRYL 1300 | Diluted Acrylic Polymer Thermoformability Tack-free state after cure, non-blocking systems Good temperature resistance Low shrinkage (1.2%) Excellent intercoat adhesion Good adhesion to a variety of untreated plastics | 1 | IBOA (70%) | 9,858 (25°C) | 0.1 | - | - | - | 1.03 | | |
| EBECRYL 1710 | Diluted Acrylic Polymer Improved adhesion Film formation Exterior durability | 2 | HDDA (60%) | 24,480 (25°C) 2,300 (60°C) | 0.5 | 6,400 | 4 | 82 | 1.07 | | |



⁽¹⁾ Not a specification

EBECRYL® Epoxy Acrylates⁽¹⁾

| EBECKIL | [®] Epoxy Acrylates ⁽¹⁾ | Typical Properties ⁽²⁾ | | | | | | | | | |
|-------------------|---|-----------------------------------|-------------------------------------|-------------------------------|-------------------------|--------------------------|--------------------------|--------------------|--------------------------|--|--|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner [Iodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | T _g ,°C | Density, g/ml at 25°C | | |
| Epoxy Acryl | ates | | | | | | | | | | |
| EBECRYL 605 | Bisphenol- A Epoxy Diacrylate • 25% TPGDA • Reduced viscosity • Easier handling | 2 | 7,617 (25°C) 248 (60°C) | 0.6 | 0.9 | 8,300 | 7 | 92 | 1.17 | | |
| EBECRYL 605/40 | Bisphenol- A Epoxy Diacrylate | 2 | 250 (25°C) 100 (60°C) | 0.5 | 0.6 | 7,400 | 3 | 80 | 1.14 | | |
| EBECRYL 608 | Bisphenol- A Epoxy Diacrylate • 25% OTA-480 • Reduced viscosity • Easier handling | 2 | 26,043 (25°C) 655 (60°C) | 0.5 | 0.7 | 8,700 | 6 | 83 | 1.15 | | |
| EBECRYL 629 | Epoxy Acrylate · 28% TMPTA + 6% HEMA · High surface hardness · Light color · Good heat resistance · Good adhesion to metal, particularly copper | 2.3 | 7,000- 13,000 (60°C) | 4 | 6 | 12,600 | 3 | 49 | 1.18 | | |
| EBECRYL 3200 | Low Viscosity Epoxy Acrylate · Handling ease · Flexibility · Pigment wetting | 1.6 | 2,235 (25°C) | 1.5 | 0.3 | 11,900 | 6 | 48 | 1.1 | | |
| EBECRYL 3411 | Fatty Acid Modified Epoxy Diacrylate Flow and levelingPigment wettingLow viscosityFlexibility | 2 | 40,100 (25°C) 807 (60°C) | 4.5 | 1.1 | 7,100 | 9 | 52 | 1.13 | | |
| EBECRYL 3415 | Modified Epoxy Diacrylate · Adhesion to plastic substrates · Good pigment milling properties · Very useful in screen inks · 40% HDDA | 1.5 | 17,500 (25°C) 1,250 (60°C) | 0.7 | 1.1 | 6,800 | 3 | 68 | 1.1 | | |
| EBECRYL 3418 | Modified Epoxy Diacrylate Excellent UV/EB cure response High flexibility Good chemical resistance High gloss Toughness Excellent adhesion to most types of wood and many plastics | 2 | 17,845 (25°C) 540 (60°C) | 0.8 | - | 4,067 | 15 | - | 1.12 | | |
| EBECRYL 3500 | Modified Epoxy Diacrylate Increased toughness Moderate viscosity Chemical resistance High gloss | 2 | 60,000 (25°C) 1,184 (60°C) | 2.5 | 2.5 | 6,500 | 43 | 35 | 1.18 | | |

 $^{^{\}left(1\right)}$ All products in this family contain materials derived from Bisphenol-A except as noted

⁽²⁾ Not a specification

EBECRYL® Epoxy Acrylates(1)

| | Epoxy Acrylates(1) . | Typical Properties ⁽²⁾ | | | | | | | | | |
|---------------------|---|-----------------------------------|--|-------------------------------|-------------------------|--------------------------|--------------------------|-------|--------------------------|--|--|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner [lodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°, c | Density, g/ml at 25°C | | |
| Epoxy Acryla | ites | | | | | | | | | | |
| EBECRYL 3503 | Modified Epoxy Diacrylate Improved wetting of pigments, matting agents, and substrates 20% OTA-480 Light color Chemical resistance | 2 | 1,050 (60°C) | 0.6 | 0.9 | 10,300 | 3 | - | 1.16 | | |
| EBECRYL 3600 | Amine Modified Epoxy Diacrylate • Exceptional reactivity • Hardness • High gloss • Chemical resistance | 2 | 232,000 (25°C) 1,334 (65.5°C) | 1.5 | 0.1 | 12,300 | 8 | 59 | 1.17 | | |
| EBECRYL 3605 | Partial Epoxy Acrylate High gloss finish Good solvent resistance High surface hardness Good adhesion to metals and other non-porous substrates Improved flexibility | 2 | 500-800 (65.5°C) | 5 | 1 | 3,800 | 35 | 43 | 1.14 | | |
| EBECRYL 3700 | Bisphenol- A Epoxy Diacrylate High reactivity Excellent solvent resistance High gloss | 2 | 800,000 (25°C) 2,317 (65.5°C) | 2.5 | 0.2 | 12,000 | 5 | 65 | 1.18 | | |
| EBECRYL 3700-25R | Bisphenol A Epoxy Diacrylate | 2 | 8,000- 20,000 (25°C) | 3 | 0.75 | 15,900 | 4 | 71 | 1.15 | | |
| EBECRYL 3701 | Modified Bisphenol- A Epoxy Diacrylate | 2 | 160,000 (25°C) 3,996 (65.5°C) | 3 | 2.7 | 11,400 | 7 | 52 | 1.19 | | |
| EBECRYL 3701-20T | Modified Bisphenol- A Epoxy Diacrylate • EBECRYL 3701 with 20% TMPTA • Reduced viscosity • Easier handling | 2 | 89,500 (25°C) 925 (65.5°C) | 2.5 | 2.3 | 14,200 | 7 | 62 | 1.18 | | |
| EBECRYL 3702 | Fatty Acid Modified Epoxy Diacrylate • Flow and leveling • Pigment wetting • Increased flexibility | 2 | 495,000 (25°C) 2,249 (65.5°C) | 4 | 1.1 | 9,500 | 10 | 56 | 1.14 | | |
| EBECRYL 3703 | Amine Modified Epoxy Diacrylate Exceptional reactivity Increased flexibility High gloss Improved adhesion | 2 | 320,000 (25°C) 2,117 (65.5°C) | 2 | 2.5 | 5,900 | 47 | 57 | 1.18 | | |
| EBECRYL 3708 | Modified Bisphenol- A Epoxy Diacrylate · Very good flexibility · Impact resistance · Good reactivity | 2 | 190,000 (25°C) 3,475 (60°C) | 1.5 | 1.7 | 1,094 | 110 | 21 | 1.16 | | |

| | | Typical Properties ⁽²⁾ | | | | | | | |
|----------------------|--|-----------------------------------|--|-------------------------------|-------------------------|--------------------------|--------------------------|--------|--------------------------|
| Product | Description • Key Features & Performance | Functionality | Viscosity, cP | Color, Gardner [Iodine] | Acid Value, mg KOH/g | Tensile Strength, psi | Tensile Elongation, % | J°, °C | Density, g/ml at 25°C |
| Epoxy Acrylate | es | | | | | | | | |
| EBECRYL® 3720 | Bisphenol- A Epoxy Diacrylate Standard epoxy diacrylate Light color High reactivity Solvent resistance High gloss | 2 | 750,000 (25°C) 1,960 (65.5°C) | 0.5 | 0.6 | 11,000 | 8 | 67 | 1.17 |
| EBECRYL 3720-HD20 | Bisphenol- A Epoxy Diacrylate • EBECRYL 3720 with 20% HDDA • Reduced viscosity • Easier handling | 2 | 8,203 (25°C) 320 (60°C) | 0.5 | 0.7 | 9,900 | 7 | 91 | 1.14 |
| EBECRYL 3720-TM20 | Bisphenol- A Epoxy Diacrylate • EBECRYL 3720 with 20% TMPTA • Reduced viscosity • Easier handling | 2 | 44,000 (25°C) 759 (60°C) | 0.5 | 1 | 9,400 | 6 | 101 | 1.18 |
| EBECRYL 3720-TM40 | Bisphenol- A Epoxy Diacrylate • EBECRYL 3720 with 40% TMPTA • Reduced viscosity • Easier handling | 2 | 7,085 (25°C) 235 (60°C) | 0.5 | 0.8 | 8,300 | 4 | 80 | 1.15 |
| EBECRYL 3720-TP25 | Bisphenol- A Epoxy Diacrylate • EBECRYL 3720 with 25% TPGDA • Reduced viscosity • Easier handling | 2 | 10,962 (25°C) 315 (60°C) | 0.5 | 0.7 | 9,800 | 4 | 96 | 1.14 |
| EBECRYL 3721 | Modified Bisphenol- A Epoxy Diacrylate Increased toughness and impact resistance High reactivity Good adhesion | 2 | 4,140 (65.5°C) | 1.8 | - | 9,300 | 3 | - | 1.14 |
| EBECRYL 3730-TP20 | Modified Bisphenol- A Epoxy Diacrylate | 2 | 35,500 (25°C) 686 (60°C) | 1.2 | 0.3 | 9,800 | 3 | 99 | 1.15 |
| EBECRYL 4266 | Modified Aromatic Epoxy Acrylate Low viscosity Good wetting of inorganic compounds Balanced hardness and flexibility | 3.5 | 6,500 (23°C) | (<3) | <2 | 2,175 | 8 | 15 | 1.14 |
| EBECRYL 5848 | Epoxidized Soya Oil Acrylate Improved flow, leveling and pigment wetting Increased adhesion and flexibility Approximately 62% renewable content | 3-4 | 19,000 (25°C) | 6 | 9.7 | - | - | - | 1.03 |
| EBECRYL 6000 | Bisphenol- A Epoxy Diacrylate Biobased Epoxy containing ~22% biocontent Fast cure response High gloss High surface hardness Excellent chemical resistance | 2 | 2,200- 4,100 (60°C) | max. 1 | max. 2 | 10,000 | 4 | 130 | 1.17 |

 $^{^{\}tiny{(1)}}$ All products in this family contain materials derived from Bisphenol-A except as noted $^{\tiny{(2)}}$ Not a specification



Made with a minimum of 10% biobased material

Diluting Acrylates

| Diluting Acrylates | | Typical Properties ⁽¹⁾ | | | | | |
|---|--|-----------------------------------|---------------------------|-------------|---------------------------------|-------------------------|--------------------------|
| Product | Description • Key Features & Performance | Viscosity cP at 25°C | Color, Pt-Co (Gardner) | Water, % | Residual Solvent, % (ppm) | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Monofunctional Diluting Acrylates | | | 1 | 1 | | 1 | |
| β-CEA However a series of the series of th | R-Carboxyethyl Acrylate Predominately acrylic acid dimer Acrylate and carboxylic acid functionality Adhesion promoter for glass, metal, paper | 73 | 35 | 0.81 | - | 365 | 1.21 |
| IBOA CH ₃ CH ₃ CH ₃ O | Isobornyl Acrylate • High purity, low color • Flexibility without softening • Increased T _g | 9.5 | 7 | 0.03 | - | - | 0.97 |
| EBECRYL® IBOMA CH ₃ CH ₃ CH ₃ | Isobornyl Methacrylate Low viscosity High purity mono-methacrylate resin Improved hardness, flexibility, chemical- and weather resistance | max. 10 | (max. 100) | max. 0.2 | - | max. 0.5 | 0.98 |
| EBECRYL 110 | Oxyethylated Phenol Acrylate Reduced odor Good diluency | 22 | (0.5) | - | 0.006 | 0.2 | 1.12 |
| EBECRYL 113 | Aliphatic Acrylate Low odor Good pigment wetting Good reactivity Increased flexibility Improved adhesion | 120 | (0.7) | - | - | 0.4 | 0.97 |
| EBECRYL 114 | 2-Phenoxyethyl Acrylate Low viscosity Good diluency Improved adhesion Beneficial in screen inks | 10 | 24 | - | - | 0.5 | 1.10 |
| EBECRYL 117 | Hydroxy Functional Monoacrylate Reactive hydroxyl group; OH value ~160 Low odor Good adhesion Low Tg; increased flexibility | 70 | <100 | - | - | - | 1.10 |
| EBECRYL 118 | Phenylglycidyl Ether Acrylate Good reactivity Improved flexibility Decreased Tg Reduced shrinkage, improved adhesion Moisture resistance | ~215 | <2 | - | - | <2 | 1.16 |



| | | Typical Properties ⁽¹⁾ | | | | | |
|---|--|-----------------------------------|---------------------------|-------------|---------------------------------|-------------------------|--------------------------|
| Product | Description • Key Features & Performance | Viscosity cP at 25°C | Color, Pt-Co (Gardner) | Water, % | Residual Solvent, % (ppm) | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Monofunctional Diluting Acrylates | , | | | | | | |
| EBECRYL CTFA | Cyclic Trimethylolpropane Acrylate Low viscosity Good hardness Fast curing speed Good solvent resistance | 12-18 | Max 200 Apha | Max. 2 | - | Max. 0.5 | 1.08- 1.11 |
| Difunctional Diluting Acrylates | | | | | | | |
| DPGDA O O O | Dipropylene Glycol Diacrylate Good diluency Improved flexibility, adhesion Reactivity | 92 | 36 | 0.04 | 0.13 | 0.2 | 1.06 |
| HDDA O | 1,6-Hexanediol Diacrylate Good weatherability Excellent diluency Adhesion | 6.3 | 8 | 0.14 | 0.05 | 0.08 | 1.01 |
| EBECRYL® MPDDA | 3-Methyl-1,5-pentanediol Diacrylate Very low viscosity Excellent weathering Good cure response at low cross-link density Good adhesion Good water resistance | 6 | max. 100 Apha | - | - | max. 0.40 | 1.01 |
| NPG(PO) ₂ DA | Neopentyl Glycol Propoxylate Diacrylate Increased flexibility Lower surface tension Improved adhesion | 15.9 | 48 | 0.03 | 0.003 | 0.07 | 1.01 |
| EBECRYL PEG200DMA H ₂ C CH ₃ CH ₂ CH ₂ | Polyethylene Glycol Dimethacrylate | max. 15 | (max. | max. 0.1 | - | max. 1 | 1.08 |
| TPGDA | Tripropylene Glycol Diacrylate Branched alkyl polyether backbone Combines flexibility, moisture resistance, low viscosity and good reactivity without causing brittleness | 11.8 | 11 | 0.16 | 0.03 | 0.11 | 1.03 |
| EBECRYL 130 | Tricyclodecanediol Diacrylate | 171 | (0.5) | - | - | 0.5 | 1.09 |

⁽¹⁾ Not a specification

Diluting Acrylates

| Diluting Acrylates | | Typical Properties ⁽¹⁾ | | | | | |
|---|---|-----------------------------------|---------------------------|----------|---------------------------------|-------------------------|--------------------------|
| Product | Description • Key Features & Performance | Viscosity cP at 25°C | Color, Pt-Co (Gardner) | Water, % | Residual Solvent, % (ppm) | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Difunctional Diluting Acrylates | | | | | | | |
| EBECRYL® 150 n+m~4 | Bisphenol-A Ethoxylate Diacrylate High reactivityHardnessChemical resistance | 1,347 | (0.05) | - | 0.003 | 2.7 | 1.14 |
| EBECRYL 151 | Grinding Vehicle for UV Inkjet Produces low viscosity pigment dispersions and inks Suitable for grinding pigments in a bead mill Low odor High reactivity Good adhesion to treated plastics and coated papers Cured inks have high gloss, good scratch and solvent resistance | 115 | (0.8) | - | - | - | 1.09 |
| Tri & Higher Functional Diluting Acryl | ates | | | | | | |
| DPHA OH OH | Acrylated Dipentaerythritol Increased crosslinking High reactivity Excellent hardness, scratch resistance Chemical resistance Pendant hydroxyl functionality Mixture of penta- and hexaacrylate | 15,400 | (0.6) | - | 0.014 | 7.3 | 1.17 |
| OTA-480 OTA-480 OTA-480 | Propoxylated Glycerol Triacrylate Good reactivity Crosslinking, hardness, chemical resistance without brittleness Pigment wetting | 88 | 42 | 0.02 | 0.01 | 0.16 | 1.08 |
| PETIA Sold Sold Sold Sold Sold Sold Sold Sold | Pentaerythritol Tri-Tetraacrylate • Tetra- to Tri- acrylate ester ratio ~ 1 to 1 • Liquid at normal ambient temperature • High reactivity • Very good hardness, scratch resistance • Pendant hydroxyl functionality | 1,044 | 30 | - | 0.007 | 6.8 | 1.18 |
| TMPEOTA | Trimethylolpropane Ethoxy Triacrylate Good diluency High UV reactivity Increased flexibility vs. TMPTA | 70 | 40 | 0.16 | 0.01 | 0.1 | 1.10 |

| | | Typical Properties ⁽¹⁾ | | | | | |
|---|--|-----------------------------------|---------------------------|----------|---------------------------------|-------------------------|--------------------------|
| Product | Description • Key Features & Performance | Viscosity cP at 25°C | Color, Pt-Co (Gardner) | Water, % | Residual Solvent, % (ppm) | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Tri & Higher Functional Diluting Acryla | | 1 | | | | | |
| TMPTA O | Trimethylolpropane Triacrylate Increases crosslinking Imparts hardness Chemical resistance Good reactivity | 115 | 35 | 0.03 | 0.01 | 0.3 | 1.10 |
| EBECRYL® 40 | Polyether Tetraacrylate Good reactivity Hardness without brittleness Chemical resistance Improved abrasion/scratch resistance | 148 | (0.6) | - | 0.002 | 1.4 | 1.15 |
| EBECRYL 45 | Polyether Tetraacrylate Low residual odor Lower potential extractables Good reactivity Hardness without brittleness | 139 | (0.2) | - | (6) | - | 1.15 |
| EBECRYL 50 W + x + y + z = 5 | Ethoxylated Pentaerythritol Tetraacrylate Light color Low viscosity Good cure response High surface hardness Good solvent resistance Low residual odor Low impurity profile | 175 | <100 | - | - | - | 1.15 |
| EBECRYL 53 | Propoxylated Glycerol Triacrylate Purified version of OTA-480 Lower residual odor Reduced residual acrylic acid Reduced residual solvent | 94 | 43 | 0.02 | (2) | 0.2 | 1.08 |
| EBECRYL 135 | Trimethylolpropane Propoxylate Triacrylate Rapid cure response Good flexibility with chemical resistance Improved adhesion Good abrasion resistance | 70-110 | <150 Apha | - | <0.01 | <0.3 | 1.06 |

Diluting Acrylates

| | | Typical Properties ⁽¹⁾ | | | | | |
|---|--|-----------------------------------|---------------------------|------------|---------------------------------|-------------------------|--------------------------|
| Product | Description • Key Features & Performance | Viscosity cP at 25°C | Color, Pt-Co (Gardner) | Water, % | Residual Solvent, % (ppm) | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Tri & Higher Functional Diluting Acrylate | es | | | | | | |
| EBECRYL® 140 | Ditrimethyolpropane Tetraacrylate High crosslinking Increased hardness Good chemical resistance Improved abrasion/scratch resistance | 979 | 85 | - | 0.008 | 5.1 | 1.08 |
| EBECRYL 853 | Ethoxylated Trimethylolpropane Triacrylate Good cure response Hardness and chemical resistance Improved flexibility Low residual odor | ~80 (25°C) | (<200) | - | - | - | 1.1 |
| EBECRYL 895 | Dipentaerythritol Penta/Hexaacrylate Lower viscosity than standard DPHA Increased crosslinking High reactivity Excellent hardness, scratch resistance Chemical resistance Pendant hydroxyl functionality | 7,602 | (0.4) | - | (0.5) | 7.3 | 1.16 |
| EBECRYL TMPTMA | Trimethylolpropane Trimethacrylate · High crosslink density · Lower stabilizer content · Lower shrinkage | 50-70 (25°C) | (100) | 0.1 max | - | - | 1.07 |

⁽¹⁾ Not a specification





EBECRYL® Additives

| | | Typical Properties ⁽¹⁾ | | | | |
|-------------------|--|-----------------------------------|-------------------------|-------------------|-------------------------|-----------------------------|
| Product | Description • Key Features & Performance | Functionalit y | Viscosity cP at 25°C | Color, Gardner | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Adhesion F | Promoters | | | | | |
| EBECRYL 168 | Acidic Methacrylate • Excellent adhesion promotion on metal • Increased compatibility compared to EBECRYL 170 | 2 | 1,466 | 0.5 | 282 | 1.29 |
| EBECRYL 170 | Acidic Acrylate • Excellent adhesion promotion on metal • Increased reactivity compared to EBECRYL 168 | 2 | 3,245 | 3 | 288 | 1.33 |
| EBECRYL 171 | Acidic Methacrylate • Excellent adhesion promotion on metal • Increased compatibility compared to EBECRYL 170 | ~1.5 | 900- 1,900 | max 1.5 | 250-330 | 1.27 |
| Flow, Leve | ling, Wetting | | | | | |
| EBECRYL 350 | Silicone Diacrylate COF reduction, increased slip Improved substrate wetting Copolymerizable, non-migratory | 2 | 288 | 7.5 | 2.4 | 1.05 |
| EBECRYL 1360 | Silicone Hexaacrylate COF reduction, increased slip Improved substrate wetting Non-migratory Particularly effective in EB | 6 | 1,327 | 6.5 | 17 | 1.11 |
| EBECRYL 1365 | Silicone Hexaacrylate Good compatibility with other commercial resins Good for wetting on difficult substrates Improves slip Improves marring resistance | 6 | 2,500 | ~0.3 | - | ~1.15 |
| Increased I | UV Reactivity | | | | | |
| EBECRYL LED 02 | Mercapto Modified Resin Improves surface cure, especially with lower energy UV LED and UVA light sources Low viscosity Compatible with most resin types Compatible with acidic additives | 3 | 106 | - | - | 1.14 |
| EBECRYL LED 03 | Amine Modified Polyether Acrylate Low viscosity Light color Good surface cure response Good flexibility Low odor | 2 | ~450 | <1 | - | 1.03 |
| EBECRYL LED 04 | Acrylated Polyamine Good (surface) cure response Good ink water balance High gloss Low odor | 6 | ~17,500 | max. 3 | - | 1.03 |
| EBECRYL LED 05 | Acrylated Polyamine Good (surface) cure response Improved ink flow stability High gloss Low odor | 6 | ~7,500 | max. 3 | - | 1.03 |

⁽¹⁾ Not a specification

EBECRYL® Photoinitiators

| | | Typical Properties ⁽¹⁾ | | | | | |
|----------------------|--|-----------------------------------|-------------------|----------------------|---------------------|----------------------------|-----------------------------|
| Product | Description • Key Features & Performance | Viscosity, cP at 25°C | Color, Gardner | Melting Point, °C | Weight per Amine | Acid Value, mg KOH/g | Density, g/ml at 25°C |
| Photoinitiators | | | | | | | |
| Amine Synergists | | | | | | | |
| EBECRYL P104 | Acrylated AmineImproved stabilityReduced odorDecreased moisture sensitivity | 10 | 0.7 | - | 300 | - | 1.01 |
| EBECRYL P115 | Copolymerizable Amine Improved stability Reduced odor Decreased moisture sensitivity | 22 | 0.4 | - | 223 | - | 0.99 |
| EBECRYL 7110 | Acrylated Amine Low color Improved stability Reduced odor Decreased moisture sensitivity Adhesion | 800- 1,500 | 4 | - | 404 | - | 1.1 |
| EBECRYL 7201 | Acrylated Amine Moderate viscosity Improved stability vs. conventional tertiary amines | ~1,150 | <u><</u> 2 | - | 397 | - | 1.15 |
| Hydrogen Abstraction | | | | | | | |
| EBECRYL P39 | Acrylated Benzophenone Derivative UV coatings and inks with very low residual odor Low vapor pressure and volatility Contains 25% EBECRYL LEO 10501 | 9,300 | 5 | - | - | 1.8 | 1.19 |

⁽¹⁾ Not a specification

Selection Guide - Resins and Diluting Acrylates

The following table provides a comparison of select performance properties for the resin and diluent products. Each product family is assigned a relative ranking for each performance property represented by the numeral just below the column heading. The higher numeral indicates increased performance for that family. The number of bullets in each performance property column represents a relative ranking for that product within its product family. Better performance is indicated by more bullets. To compare the performance of products from different product families, multiply the number of bullets by the numeral.

For example, comparing the UV/EB Reactivity of the epoxy acrylate EBECRYL® 3700 (\cdots x 5 = 20) to that of the aliphatic urethane acrylate EBECRYL 1290 (\cdots x 3 = 15) indicates that EBECRYL 3700 has the superior UV/EB Reactivity.

Note: For the performance category of viscosity, increased performance equals lower viscosity.

For the UCECOAT® resins, the performance ratings are applicable for comparison among these products, but not to the EBECRYL resins and diluting acrylates.

| Resins | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weatherability | Chemical Resistance | Moisture Resistance | Abrasion Resistance | Scratch Resistance |
|-------------------|---------------------|-----------|----------|----------|-------------|----------------|------------------------|------------------------|------------------------|-----------------------|
| Epoxy Acrylates | 5 | 3 | 3 | 4 | 2 | 1 | 5 | 3 | 2 | 3 |
| EBECRYL 605 | ••• | •••• | ••• | ••• | • • | •• | •••• | ••• | • • | ••• |
| EBECRYL 605/40 | ••• | •••• | ••• | ••• | •• | •• | ••• | ••• | •• | ••• |
| EBECRYL 608 | •••• | ••• | ••• | •••• | • | •• | •••• | •••• | ••• | ••• |
| EBECRYL 629 | •••• | • • | •••• | •••• | • • | • • | ••• | •••• | •••• | •••• |
| EBECRYL 3200 | • • | •••• | ••• | •• | ••• | ••• | •• | ••• | ••• | • |
| EBECRYL 3411 | ••• | ••• | ••• | •••• | ••• | •• | ••• | ••• | ••• | •• |
| EBECRYL 3415 | •• | •••• | •••• | •• | •• | • • | ••• | •••• | ••• | •• |
| EBECRYL 3418 | ••• | ••• | •••• | •• | •••• | •• | ••• | ••• | •••• | •• |
| EBECRYL 3500 | ••• | ••• | •••• | ••• | ••• | • • | ••• | ••• | •••• | ••• |
| EBECRYL 3503 | •••• | •••• | ••• | •••• | • | •• | •••• | ••• | •• | ••• |
| EBECRYL 3600 | •••• | •• | •••• | •••• | • | • | •••• | ••• | •• | •••• |
| EBECRYL 3605 | •••• | ••• | ••• | •••• | ••• | • | •••• | ••• | ••• | ••• |
| EBECRYL 3700 | •••• | • | ••• | •••• | • | • | •••• | •••• | ••• | •••• |
| EBECRYL 3700-25R | •••• | ••• | ••• | •••• | • | •• | •••• | ••• | •• | ••• |
| EBECRYL 3701 | •••• | • | •••• | •••• | ••• | • • | •••• | •••• | •••• | ••• |
| EBECRYL 3701-20T | •••• | •• | ••• | •••• | •• | •• | •••• | •••• | ••• | ••• |
| EBECRYL 3702 | ••• | • • | •••• | ••• | ••• | • • | •••• | ••• | •••• | • • |
| EBECRYL 3703 | •••• | • • | •••• | •••• | •• | • | •••• | ••• | ••• | ••• |
| EBECRYL 3708 | ••• | •• | •••• | •• | •••• | •• | ••• | ••• | •••• | •• |
| EBECRYL 3720 | •••• | • | ••• | •••• | • | • | •••• | •••• | ••• | •••• |
| EBECRYL 3720-HD20 | ••• | •••• | ••• | •••• | •• | •• | •••• | ••• | ••• | ••• |
| EBECRYL 3720-TM20 | •••• | ••• | ••• | •••• | • | •• | •••• | ••• | •• | ••• |
| EBECRYL 3720-TM40 | •••• | •••• | •• | •••• | • | •• | •••• | ••• | •• | •••• |
| EBECRYL 3720-TP25 | ••• | •••• | ••• | ••• | •• | •• | •••• | ••• | •• | ••• |

| Resins | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weatherability | Chemical Resistance | Moisture Resistance | Abrasion Resistance | Scratch Resistance |
|------------------------------|---------------------|-----------|----------|----------|-------------|----------------|------------------------|------------------------|------------------------|-----------------------|
| Epoxy Acrylates | 5 | 3 | 3 | 4 | 2 | 1 | 5 | 3 | 2 | 3 |
| EBECRYL® 3721 | •••• | • | ••• | •••• | • • | • • | •••• | •••• | •••• | ••• |
| EBECRYL 3730-TP20 | ••• | •••• | ••• | ••• | •• | •• | ••• | ••• | •• | ••• |
| EBECRYL 4266 | ••• | •••• | ••• | •• | ••• | • | ••• | ••• | ••• | •• |
| EBECRYL 5848 | • | ••• | •• | • | ••• | •••• | • | •••• | • | • |
| EBECRYL 6000 | •••• | • | ••• | •••• | • | • | •••• | •••• | ••• | •••• |
| Aliphatic Urethane Acrylates | 3 | 2 | 3 | 4 | 5 | 5 | 2 | 4 | 5 | 5 |
| EBECRYL 225 | •••• | ••• | • • | •••• | • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 230 | • | ••• | •••• | •• | •••• | ••• | • | ••• | •• | • |
| EBECRYL 231 | • | •••• | ••• | • | •••• | ••• | • | • • | • | • |
| EBECRYL 242N | •• | •• | •••• | • • | •••• | ••• | ••• | ••• | ••• | • • |
| EBECRYL 248 | ••• | ••• | ••• | ••• | ••• | ••• | ••• | •••• | ••• | •• |
| EBECRYL 249 | | | | | | | | | | |
| EBECRYL 250 | • | ••• | •••• | •• | •••• | ••• | • | ••• | •• | • |
| EBECRYL 264 | ••• | ••• | •• | •••• | •• | ••• | •••• | ••• | •••• | ••• |
| EBECRYL 265 | ••• | ••• | ••• | •••• | •• | •• | •••• | ••• | •••• | ••• |
| EBECRYL 267 | •••• | ••• | ••• | •••• | • | •• | •••• | •••• | •••• | •••• |
| EBECRYL 270 | •• | •• | ••• | • | •••• | ••• | •• | •• | •• | • |
| EBECRYL 284 | ••• | ••• | ••• | ••• | ••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 285 | ••• | ••• | ••• | ••• | ••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 286 | ••• | ••• | ••• | ••• | ••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 294/25 | ••• | •• | ••• | •••• | •• | ••• | •••• | ••• | •••• | •• |
| EBECRYL 1271 | •• | •• | ••• | • | •••• | ••• | •• | •• | •• | • |
| EBECRYL 1290 | •••• | ••• | •• | •••• | • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 1291 | •••• | ••• | •• | •••• | • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 4100 | ••• | •••• | ••• | •• | ••• | ••• | •• | ••• | ••• | ••• |
| EBECRYL 4201 | ••• | •••• | ••• | •• | •• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 4265 | ••• | •••• | • | •••• | • | ••• | •••• | ••• | ••• | •••• |
| EBECRYL 4491 | • | •••• | ••• | • | •••• | ••• | •• | ••• | ••• | • |
| EBECRYL 4513 | ••• | ••• | ••• | • | ••• | ••• | • • | ••• | ••• | • • |
| EBECRYL 4587 | •• | •••• | •• | ••• | • • | ••• | ••• | •• | ••• | ••• |
| EBECRYL 4654 | •• | •••• | •••• | ••• | ••• | ••• | ••• | ••• | ••• | ••• |
| EBECRYL 4666 | ••• | ••• | • | •••• | • • | •••• | •••• | ••• | ••• | ••• |
| EBECRYL 4680 | •••• | ••• | •• | •••• | • | •••• | •••• | •••• | ••• | •••• |
| EBECRYL 4690 | •••• | ••• | •• | •••• | • | •••• | •••• | •••• | ••• | •••• |
| EBECRYL 4738 | ••• | ••• | ••• | ••• | • | ••• | •••• | ••• | •••• | ••• |
| EBECRYL 4740 | •• | •••• | ••• | •• | ••• | ••• | ••• | ••• | ••• | •• |
| EBECRYL 4833 | ••• | •• | •••• | ••• | ••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 4858 | ••• | •••• | ••• | ••• | •• | ••• | •••• | •••• | •••• | •••• |
| EBECRYL 4859 | • | •••• | •• | ••• | ••• | ••• | ••• | ••• | ••• | •• |
| EBECRYL 4883 | ••• | •• | ••• | •• | ••• | ••• | ••• | ••• | ••• | •• |
| EBECRYL 4900 | ••• | •••• | •••• | ••• | •••• | •••• | •••• | •••• | •• | •••• |

| | | | | | | b | | | | |
|------------------------------|---------------------|-----------|----------|----------|-------------|----------------|------------------------|------------------------|------------------------|-----------------------|
| | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weatherability | Chemical Resistance | Moisture Resistance | Abrasion Resistance | Scratch Resistance |
| Resins | UV, Reg | Visc | Adh | Har | Fle | Wea | Che Res | Moi | Abr Res | Scra |
| Aliphatic Urethane Acrylates | 3 | 2 | 3 | 4 | 5 | 5 | 2 | 4 | 5 | 5 |
| EBECRYL® 4950 | •••• | •••• | •••• | •••• | ••• | •••• | •••• | ••• | •• | •••• |
| EBECRYL 5129 | •••• | ••• | •• | •••• | •• | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 5130 | •••• | ••• | • • | •••• | • • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 8209 | •••• | •••• | •• | •••• | • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 8210 | •••• | •••• | • • | •••• | • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 8301-R | •••• | •••• | •• | •••• | • | ••• | •••• | ••• | •••• | •••• |
| EBECRYL 8314 | ••• | •••• | •••• | ••• | •••• | •••• | •••• | •••• | •••• | •• |
| EBECRYL 8315 | ••• | •••• | •••• | ••• | •••• | •••• | •••• | •••• | •••• | • • |
| EBECRYL 8402 | ••• | •••• | •••• | ••• | ••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 8405 | ••• | ••• | ••• | ••• | ••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 8409 | ••• | •••• | •••• | ••• | ••• | •••• | ••• | ••• | ••• | • • |
| EBECRYL 8411 | •• | •• | ••• | • | •••• | ••• | •• | •• | • • | • • |
| EBECRYL 8413 | ••• | ••• | •••• | • | •••• | ••• | •• | • • | ••• | • • |
| EBECRYL 8501 | •••• | ••• | •••• | ••• | ••• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 8602 | •••• | ••• | •• | •••• | • | •••• | •••• | ••• | •••• | •••• |
| EBECRYL 8605 | • | • | ••• | •••• | •• | •••• | •••• | •••• | •••• | ••• |
| EBECRYL 8606 | ••• | •• | •••• | ••• | •••• | •••• | •••• | •••• | ••• | •• |
| EBECRYL 8702 | ••• | •• | ••• | •••• | ••• | •••• | •••• | •••• | •••• | ••• |
| EBECRYL 8800 | •••• | • | ••• | ••• | ••• | •••• | ••• | •••• | ••• | • • |
| EBECRYL 8800-20R | •••• | ••• | ••• | ••• | ••• | ••• | ••• | •••• | ••• | • • |
| EBECRYL 8804 | ••• | • | ••• | ••• | ••• | ••• | ••• | ••• | •••• | • • |
| EBECRYL 8807 | •••• | •• | ••• | ••• | ••• | ••• | ••• | •••• | ••• | • • |
| EBECRYL 8809 | ••• | • | ••• | ••• | •••• | •••• | ••• | ••• | ••• | •• |
| EBECRYL 8810 | ••• | • | ••• | ••• | ••• | ••• | ••• | ••• | •••• | •• |
| EBECRYL 8812 | •••• | • | ••• | ••• | ••• | •••• | ••• | •••• | ••• | • • |
| EBECRYL 8894 | ••• | ••• | •• | •• | ••• | ••• | ••• | •••• | ••• | ••• |
| EBECRYL 8896 | • • | ••• | •• | • | •••• | ••• | •• | ••• | ••• | •• |
| Aromatic Urethane Acrylates | 3 | 2 | 3 | 3 | 5 | 2 | 3 | 4 | 5 | 5 |
| EBECRYL 220 | •••• | ••• | • | •••• | • | • | •••• | •••• | •••• | •••• |
| EBECRYL 2221 | •••• | ••• | •• | •••• | •• | • | •••• | •••• | •••• | •••• |
| EBECRYL 4501 | •••• | •••• | ••• | •• | •• | •• | ••• | ••• | •••• | ••• |
| EBECRYL 4827 | • | •• | ••• | • | •••• | ••• | • | ••• | •• | •• |
| EBECRYL 4849 | •• | ••• | •••• | •• | •••• | •••• | ••• | ••• | ••• | •• |

| Resins | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weather a bility | Chemical Resistance | Moisture Resistance | Abrasion Resistance | Scratch Resistance |
|---|---------------------|-----------|----------|----------|-------------|------------------|------------------------|------------------------|------------------------|-----------------------|
| Isocyanate Functional | 2 | 2 | 4 | 3 | 4 | 3 | 3 | 3 | 5 | 4 |
| Urethane Acrylates EBECRYL® 4150 | •• | ••• | •••• | •• | ••• | ••• | ••• | ••• | ••• | •• |
| EBECRYL 4155 | ••• | •••• | •••• | •• | ••• | ••• | •• | ••• | ••• | ••• |
| EBECRYL 4396 | • | ••• | •••• | •• | •••• | ••• | ••• | ••• | ••• | •• |
| EBECRYL 4390 | • | ••• | •••• | •• | •••• | ••• | ••• | ••• | ••• | • |
| EBECRYL 4510 | •••• | •• | ••• | •••• | • | ••• | •••• | ••• | •••• | •• |
| | | | | 0000 | | | 0000 | | | |
| Polyether/Polyester Acrylates & Diluted Polyesters | 4 | 5 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 4 |
| EBECRYL 80 | •••• | ••• | ••• | •••• | • | •• | •••• | •• | •••• | ••• |
| EBECRYL 81 | ••• | •••• | ••• | •• | ••• | •• | •• | • | • | • |
| EBECRYL 83 | •••• | •••• | ••• | ••• | •• | •• | ••• | •• | •••• | •• |
| EBECRYL 85 | •••• | •••• | ••• | ••• | •• | •• | ••• | •• | ••• | •• |
| EBECRYL 367 | •••• | •••• | •••• | ••• | ••• | ••• | ••• | ••• | ••• | ••• |
| EBECRYL 416 | •••• | • | •••• | ••• | • | • • | ••• | • • | •• | • • |
| EBECRYL 417 | •••• | • • | •••• | ••• | • | • • | ••• | • • | •• | •• |
| EBECRYL 418 | •••• | •• | •••• | ••• | • | •• | ••• | •• | •• | •• |
| EBECRYL 441 | ••• | •• | •••• | •• | ••• | ••• | ••• | •• | •• | •• |
| EBECRYL 444 | •••• | • | •••• | ••• | • | • • | ••• | • • | • • | • • |
| EBECRYL 445 | •••• | • • | •••• | ••• | • | • • | ••• | • • | • • | • • |
| EBECRYL 450 | ••• | ••• | ••• | ••• | •• | ••• | •••• | ••• | •••• | ••• |
| EBECRYL 452 | ••• | •••• | ••• | ••• | ••• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 524 | • | • • | •••• | • • | ••• | • • | • | •• | • • | • |
| EBECRYL 546 | • • | ••• | •••• | •• | ••• | •• | •• | •• | ••• | •• |
| EBECRYL 571 | • | ••• | •••• | •• | ••• | •• | •• | •• | ••• | •• |
| EBECRYL 573 | •••• | •••• | •••• | •• | •••• | •• | • • | ••• | ••• | ••• |
| EBECRYL 657 | ••• | • | ••• | ••• | •• | •• | ••• | ••• | ••• | •• |
| EBECRYL 809 | • • | ••• | •• | •• | •••• | ••• | •• | ••• | •••• | •• |
| EBECRYL 810 | ••• | •••• | ••• | ••• | •• | •••• | •••• | •••• | •••• | ••• |
| EBECRYL 812 | ••• | ••• | ••• | ••• | •••• | • | •••• | ••• | •••• | •• |
| EBECRYL 820 | •••• | •••• | ••• | ••• | ••• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 830 | ••• | •• | •• | •••• | • | •••• | •••• | •••• | •••• | •••• |
| EBECRYL 838 | ••• | •• | •• | •••• | • | •••• | •••• | •••• | •••• | •••• |
| EBECRYL 846 | •••• | •• | •• | •••• | • | •• | ••• | •••• | •••• | •••• |
| EBECRYL 854 | ••• | •• | •••• | •• | ••• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 856 | •••• | •••• | ••• | ••• | ••• | •• | •••• | •••• | •••• | •••• |
| EBECRYL 870 | •••• | •• | ••• | ••• | •• | •• | ••• | ••• | ••• | •• |
| EBECRYL 871 | •••• | •• | ••• | ••• | •• | •• | ••• | ••• | ••• | •• |
| EBECRYL 875 | •• | •• | ••• | ••• | •• | ••• | ••• | •• | ••• | •• |
| EBECRYL 876 | •••• | ••• | ••• | •••• | •• | •• | •••• | ••• | ••• | ••• |

| Resins | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weatherability | Chemical Resistance | Moisture Resistance | Abrasion Resistance | Scratch Resistance |
|--|---------------------|-----------|----------|----------|-------------|----------------|------------------------|------------------------|------------------------|-----------------------|
| Polyether/Polyester Acrylates & Diluted Polyesters | 4 | 5 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 4 |
| EBECRYL® 888 | •••• | •••• | •••• | ••• | •••• | • • | •••• | ••• | •••• | ••• |
| EBECRYL 893 | • • • | •••• | ••• | ••• | • • | •••• | •••• | •••• | •••• | ••• |
| EBECRYL 898 | • • • | ••• | ••• | ••• | • • | •••• | •••• | •••• | •••• | ••• |
| EBECRYL 1859 | •••• | •• | ••• | ••• | •• | •• | ••• | ••• | ••• | ••• |
| EBECRYL 1885 | ••• | •• | ••• | ••• | •••• | •••• | ••• | ••• | •••• | ••• |
| EBECRYL 4175 | • • | • • | •••• | ••• | • | • • | ••• | ••• | ••• | ••• |
| EBECRYL 4381 | • • | ••• | •••• | ••• | • | • • | ••• | ••• | ••• | ••• |
| EBECRYL 4744 | •• | ••• | •• | •• | ••• | •• | ••• | •• | ••• | ••• |
| EBECRYL 5781 | •••• | •••• | •• | •••• | •• | ••• | •••• | ••• | ••• | •••• |
| EBECRYL 5850 | •••• | ••• | ••• | ••• | ••• | ••• | ••• | ••• | •••• | ••• |
| Acrylic Acrylate | 2 | 1 | 4 | 2 | 3 | 4 | 2 | 4 | 2 | 1 |
| EBECRYL 1200 | •• | •••• | •••• | ••• | •• | •••• | •• | ••• | ••• | •• |
| EBECRYL 1205 | •• | •••• | •••• | •• | ••• | •••• | •• | ••• | •• | •• |
| Polymer/Diluent Blends | 2 | 1 | 5 | 2 | 3 | 4 | 2 | 4 | 2 | 1 |
| EBECRYL 303 | •• | •••• | •••• | ••• | •• | •••• | •• | ••• | •• | ••• |
| EBECRYL 745 | ••• | •••• | •••• | ••• | ••• | •••• | •• | •••• | ••• | •• |
| EBECRYL 1300 | •• | ••••• | •••• | ••• | •• | •••• | •• | ••• | •• | ••• |
| EBECRYL 1710 | •• | •••• | •••• | ••• | • • | •••• | •• | •••• | •• | •••• |
| Diluting Acrylates Monofunctional | 2 | 5 | 4 | 1 | 5 | 3 | 2 | 3 | 2 | 1 |
| β-CEA | •••• | • | •••• | •••• | •• | •• | •••• | •• | ••• | •• |
| IBOA | •• | • • | ••• | •••• | • • | •••• | •••• | ••• | •••• | •••• |
| EBECRYL IBOMA | • | • • | ••• | •••• | • • | •••• | •••• | ••• | •••• | •••• |
| EBECRYL 110 | •••• | ••• | •• | • • | ••• | •• | •• | •• | ••• | ••• |
| EBECRYL 113 | ••• | • | •••• | •• | ••• | ••• | ••• | ••• | •• | •• |
| EBECRYL 114 | •••• | •••• | •••• | ••• | ••• | •• | ••• | ••• | ••• | ••• |
| EBECRYL 117 | •• | •••• | •••• | ••• | ••• | •• | ••• | ••• | ••• | ••• |
| Diluting Acrylates Difunctional | 2 | 5 | 4 | 1 | 5 | 3 | 2 | 3 | 2 | 1 |
| DPGDA | ••• | ••• | ••• | ••• | ••• | •••• | •••• | ••• | ••• | •••• |
| HDDA | ••• | •••• | •••• | •• | •••• | •••• | ••• | •••• | •••• | ••• |
| EBECRYL MPDDA | ••• | •••• | •••• | • • | •••• | •••• | ••• | •••• | •••• | ••• |
| NPG(PO) ₂ DA | • | ••• | •••• | • | •••• | ••• | •• | ••• | •••• | •• |
| TPGDA | •• | ••• | •••• | ••• | •••• | ••• | •••• | •••• | •••• | ••• |
| EBECRYL 130 | •••• | •• | ••••• | •••• | ••• | ••• | •••• | ••••• | •••• | ••••• |
| EBECRYL 150 | •••• | • | •• | ••••• | •• | • | ••••• | ••••• | ••• | ••••• |
| EBECRYL 151 | •••• | • • | •••• | •••• | ••• | ••• | •••• | •••• | •••• | •••• |

| Resins | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weatherability | Chemical Resistance | Moisture Resistance | Abrasion Resistance | Scratch Resistance |
|--|---------------------|-----------|----------|----------|-------------|----------------|------------------------|------------------------|------------------------|-----------------------|
| Diluting Acrylates Trifunctional & Higher | 4 | 3 | 2 | 5 | 1 | 3 | 4 | 3 | 3 | 4 |
| DPHA | •••• | • | • | •••• | • | • | •••• | ••• | • • | •••• |
| OTA-480 | • • | ••• | •••• | •• | •••• | •••• | ••• | •••• | •••• | •• |
| PETIA | •••• | •• | •• | •••• | • | •• | •••• | •• | •• | •••• |
| TMPEOTA | ••• | •••• | ••• | ••• | •••• | ••• | ••• | ••• | •••• | ••• |
| TMPTA | •••• | ••• | •• | •••• | • | •••• | •••• | •••• | ••• | •••• |
| EBECRYL® TMPTMA | ••• | ••• | • • | •••• | • | •••• | •••• | •••• | ••• | •••• |
| EBECRYL 40 | ••• | ••• | ••• | ••• | ••• | ••• | •••• | •••• | •••• | ••• |
| EBECRYL 45 | ••• | ••• | ••• | ••• | ••• | ••• | •••• | •••• | •••• | ••• |
| EBECRYL 50 | •••• | ••• | ••• | ••• | ••• | ••• | •••• | •••• | •••• | ••• |
| EBECRYL 53 | •• | ••• | •••• | •• | •••• | •••• | •••• | •••• | •••• | •• |
| EBECRYL 135 | ••• | •••• | ••• | ••• | •••• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 140 | •••• | •• | •• | •••• | • | ••• | •••• | •••• | ••• | ••• |
| EBECRYL 853 | ••• | •••• | ••• | ••• | •••• | ••• | ••• | ••• | •••• | ••• |
| EBECRYL 895 | •••• | • | • | •••• | • | • | •••• | ••• | •• | •••• |

| Resins | UV/EB Reactivity | Viscosity | Adhesion | Hardness | Flexibility | Weatherability | Chemical Resistance | Moisture Resistance | Scratch Resistance |
|----------------------|---------------------|-----------|----------|----------|-------------|----------------|------------------------|------------------------|-----------------------|
| Waterborne UV Resins | | | | | | | | | |
| UCECOAT® 2501 | ••• | •••• | •••• | •• | ••• | •••• | ••• | ••• | •• |
| UCECOAT 2801 | ••• | •••• | •••• | ••• | ••• | •••• | •• | ••• | ••• |
| UCECOAT 2804 | •••• | •••• | •••• | ••• | ••• | ••• | •••• | ••• | ••• |
| UCECOAT 2807 | •••• | •••• | •••• | ••• | ••• | ••• | •••• | ••• | ••• |
| UCECOAT 6560 | ••• | •••• | •••• | ••• | •••• | ••• | ••• | ••• | ••• |
| UCECOAT 6570 | ••• | •• | ••••• | ••• | •••• | ••• | ••• | ••• | ••• |
| UCECOAT 7230 | •••• | •••• | •••• | •••• | • | •• | •••• | •••• | ••••• |
| UCECOAT 7510 | ••• | •••• | •••• | •••• | •• | •••• | •••• | •••• | •••• |
| UCECOAT 7520 | ••• | •••• | •••• | •••• | •• | •••• | ••• | ••• | ••• |
| UCECOAT 7620 | •••• | •• | •••• | •••• | •• | ••• | •••• | •••• | •••• |
| UCECOAT 7630 | ••• | ••• | •••• | •••• | •• | ••• | •••• | •••• | •••• |
| UCECOAT 7655 | •••• | •• | •••• | •••• | • | •• | •••• | •••• | ••••• |
| UCECOAT 7674 | ••• | •••• | •••• | ••• | ••• | •••• | •• | ••• | ••• |
| UCECOAT 7690 | •• | •••• | •••• | ••• | •••• | •••• | •••• | •••• | ••• |
| UCECOAT 7700 | •••• | •••• | •••• | •••• | • | • | ••••• | •••• | ••••• |
| UCECOAT 7717 | ••• | ••• | •••• | ••• | ••• | •••• | ••• | ••• | ••• |
| UCECOAT 7733 | •••• | • | •••• | •••• | • | •• | ••••• | •••• | •••• |
| UCECOAT 7788 | ••• | ••• | •••• | ••• | ••• | •• | •••• | ••• | ••• |
| UCECOAT 7856 | •••• | ••• | •••• | ••• | ••• | •• | •••• | •••• | ••• |
| UCECOAT 7891 | •••• | ••• | •••• | ••••• | • | • | •••• | •••• | ••••• |

Key to the Tables

| Key Word | Description |
|------------------|--|
| Acid Value | Expressed in mg KOH per gram. For some materials, acid value is reported as weight % acrylic acid. Note: acid value x 0.128 = % acrylic acid acid value x 0.1497 = % methacrylic acid |
| Color | Average values in Gardner, Pt-Co (APHA), or iodine scales. Gardner - range from light yellow to red defined by the chromaticities of glass standards numbered from 1 for the lightest to 18 for the darkest. Pt-Co - defined by specified dilutions of a platinum-cobalt stock solution, ranging from 0 at the light end of the scale to 500 at the darkest. lodine - ranges from yellow to brown defined by specified dilutions of an iodine solution, ranging from 1 for the lightest color to 500 for the darkest. For colors registering 1 or less on the lodine scale, the Platinum-Cobalt Units are applicable. For products where a color specification has not been defined, a description of the color will appear. |
| Density | Mass per unit of volume at 25°C, expressed in grams per milliliter. |
| Elongation | Average elongation (strain) at break expressed as the percent change in the gauge length, measured on the UV cured homopolymer of the product. |
| Functionality | Theoretical number of acrylate double bonds per molecule. |
| MFFT | Minimum filmformation temperature. The temperature at which a continuous film is formed after the evaporation of volatile materials from a dispersion or emulsion. |
| Molecular weight | The calculated weight based on the theoretical chemical composition. |
| Particle size | The mean size of the particles in dispersion, reported in microns. |
| рН | The measure of the acidity or alkalinity of an aqueous product. Numerically equal to 7 for neutral, pH increases with alkalinity and decreases with acidity over a range of 0-14. |
| Solids | The amount, expressed in percent, of the non-volatile material remaining from a solution or dispersion when heated at a specified time and temperature. |
| Tensile Strength | Average stress in pounds per square inch at break, measured on the UV cured homopolymer of the product. |
| Tg | Glass transition temperature in °C of the UV cured homopolymer of the product as measured by dynamic mechanical analysis (DMA). |
| Viscosity | Viscosity in centipoise (cP) or poise (P) measured at 25°C and at the sales specification temperature if other than 25°C. cP = mPa·s. |
| Weight per Amine | Average molecular weight per amine group. |
| Young's Modulus | Also known as elastic modulus; the force required to elongate a material and calculated from the ratio of stress to strain. It is indicative of the stiffness or rigidity of a material. Measured on the UV cured homopolymer of the product. |

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