

Environmental Friendly Technology for 21st Century

Social Responsibility

Adhering to the corporate philosophy of environmental protection and perpetual development, Eternal enterprise has been establishing a corporate culture that complies with the law, honor and morality, emphasizes providing social benefits and excellent working environment; and cultivates national esteem. We strive for an international level of management standard in order to achieve the long-term objective of substantiality.

In order to take the responsibility for environmental protection, we make efforts in lowering and preventing the generation of pollution source. We also aggressively develop environmentally-friendly green products in our R&D Center. Thus, we can minimize negative impacts on the environment.

In terms of safety management, we put industrial safety and hygiene and fire control as our first priorities. In addition to continuously improving the safety of the production process, we also study the safety regulations of advanced countries in Europe, as well as the U.S.A. and Japan to set up and practice safety guidelines and rules in accordance with relevant local laws and regulations related to our company and those in Taiwan.

Corporate Culture

Ever since its foundation in 1964, the corporate culture at Eternal has always been created and based in law compliance, faith keeping, moral behavior and community feedback. We also attach great importance to employees' integrity, workplace beautification and the cultivation of our employees' national self-respect as part of our efforts to build a good company image.

Company Profile (2011)

has annual sales of approximately usd \$1253 millions

has employees about 4,200

has 20 production sites and sales offices in more than 10 countries

sells to over 61 countries

Business Philosophy

Eternal is a responsible company. To take as its responsibility, our management team strive to exceed the demand of our customers, dedicate its efforts to the environment, protect the best interests of our shareholders, and take care of our employees' welfare so as to complete the missions confided by the company.

Global Manufacturing and Marketing

Eternal's main manufacturing facilities are currently based in Taiwan, China and the United States. We are planning to expand our manufacturing facilities to other countries in the future while also working closely with high-tech companies in Japan, the U.S.A., Germany and France. Our marketing network in particular will take world's major cities.

Prospect

The major ground for Eternal's constant growth is research and innovation. With the beliefs of "production quality, solid reputation, innovation and service", we have been dedicating our efforts to technological development and promotion, with greater quality production, to carry out the principle of sustainable growth and techniques for continually offering benefits to the public.

With the operating goal of Eternal: "plan for the future, and build the global brand", we take a broad view in the more capacious international field, and attempt, with our hard plowing in the global point market, to prove ourselves to be a global-brand supplier of electronics industry-specific chemical materials.

Facing the future, Eternal seeks constant self-evaluation and growth. We believe we are well prepared to stand firm and confront the challenges ahead despite the intense competition, to create another high peak in our continual growth.



The Brief Introduction of Corporation

Quality Policy

- We strive to establish a total QA System in which the spirit of "Research, Development, Innovation and Environmental Protection" as well as quality improvement practice will be carried out.
- By way of continuous improvement, we guarantee the quality of our products and service, as well as our responsibility towards the environment, to satisfy the needs of our customers and the general public.

AWARD

1995 Approved ISO9001 BVQI Certificate.
1999 Approved ISO14001 BVQI Certificate



Safety, Health and Environment Policy

Sustainable development is the business philosophy of Eternal Group. We make the following commitments to fulfillment of our social responsibilities for valuing life and protecting the earth.

- Comply with regulations and implement policy
- Full participation and continual improvement
- Pursue safe production and develop green products
- Effective training and communication to promote business culture

AWARD

Environmental Protection

1986 Outstanding Performance on Pollution Prevention granted by Chinese National Federation of Industries.
1998 Ta-Fa Plant received Outstanding Performance in Plant Site Gardening granted by Taiwan Provincial Government.
1999 Approved ISO14001 BVQI Certificate.

Safety

1995 Voluntary Protection Programs Organization granted by the Council of Labor Affairs, Executive Yuan.
1995 Voluntary Protection Programs Organization granted by the Council of Labor Affairs, Executive Yuan.
1997 Voluntary Protection Programs Organization granted by the Council of Labor Affairs, Executive Yuan.
2009 Approved TOSHMS/OHSAS18001 BVQI Certificate.

Monomers and Oligomers

1. Monomers

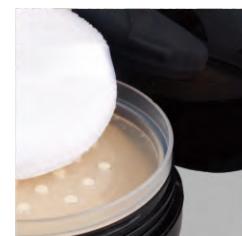
- (1) Mono-functional monomers
- (2) Di-functional monomers
- (3) Tri-functional monomers
- (4) Multi-functional monomers
- (5) Ethoxylated monomers, propoxylated monomers
- (6) Coprolactone modified multi-functional monomers
- (7) Toluene Free monomers,...etc.
- (8) Monomers with high refractive index
- (9) High Tg monomers
- (10) Monomers with rigid ring structure

2. Oligomers

Highest quality of Polyurethane, Epoxy, Polyester and full Acrylic based Acrylated Oligomers are essential elements to any UV formulation, participation of Reactive amine synergist and Photoinitiators are also required to take part in the formulation. Furthermore Eternal's R&D has synthesis new lines of water-borne polyurethane, hyper-branched polyester acrylate bio-based renewable products and organic-inorganic hybrid in meeting the specific demand by our customers. Our Oligomer portfolio and its performance have earned Eternal brand a prestige reputation among our customers globally.

Applications

The main application and usage are UV protective coating, inks, photo resist agent, bonding glue, high water absorbent resin and rubber compounding agent, electronic related series of acrylate monomers, oligomers, reactive amine synergists and photoinitiators.

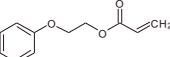
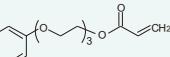
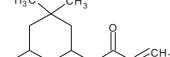
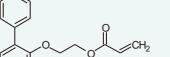
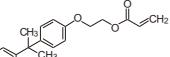
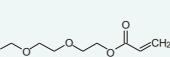
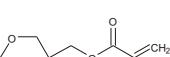


MONOMERS



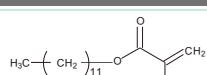
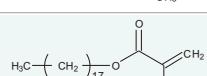
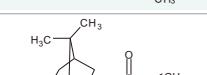
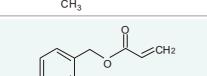
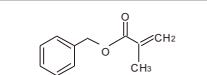
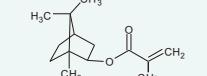
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MONOFUNCTIONAL MONOMERS

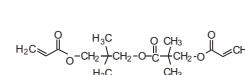
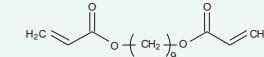
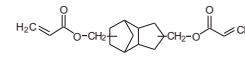
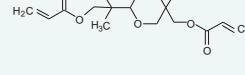
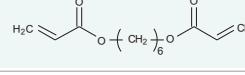
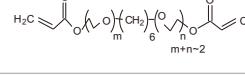
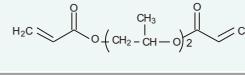
Estermer	Chemical Description	Characteristics
EM210 2-Phenoxy Ethyl Acrylate, PHEA		<ul style="list-style-type: none"> • Low viscosity • Good solvency • High reactivity • Suitable for screen ink
EM2103 Ethoxylated Phenoxyl Acrylate, PH3EOA		<ul style="list-style-type: none"> • Low viscosity • Good solvency • High reactivity • Low skin irritation
EM2104 3,3,5-Trimethyl Cyclohexane Acrylate, TMCHA		<ul style="list-style-type: none"> • High Tg • Low shrinkage • Good adhesion • Low surface tension
EM2105 Ortho-Phenyl Phenoxy Ethyl Acrylate, OPPEA		<ul style="list-style-type: none"> • High gloss • High refractive index • Low volume shrinkage
EM2107 Cumyl Phenoxy Ethyl Acrylate, CPEA		<ul style="list-style-type: none"> • High gloss • High refractive index • Low volume shrinkage
EM211 2-(2-Ethoxyethoxy) Ethyl Acrylate, EOEOEA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good solvency
EM212 Cyclic Trimethylol-propane Formal Acrylate, CTFA		<ul style="list-style-type: none"> • Low odor • High hardness • Fast curing rate • Good abrasion resistance • Good chemical resistance
EM214 Tetrahydrofurfuryl Acrylate, THFA		<ul style="list-style-type: none"> • Good weatherability • Good chemical resistance • Excellent adhesion for PC substrates
EM215 Lauryl Acrylate, LA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance
EM218 Stearyl Acrylate, SA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance
EM219 Isodecyl Acrylate, ISODA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance
EM2191 C8-C10 Acrylate, ODA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance
EM309 Isodecyl Methacrylate IDMA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance
EM310 2-Phenoxy Ethyl Methacrylate PHEMA		<ul style="list-style-type: none"> • Low viscosity • Good solvency • High reactivity
EM313 Isotridecyl Methacrylate ITDMA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance
EM315 Lauryl Methacrylate, LMA		<ul style="list-style-type: none"> • Low shrinkage • Good flexibility • Good weatherability • Good water resistance

Typical Physical & Chemical Properties										
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
Clear liquid	60	0.5	1.10~1.11	5~15	1.515	200~600	38.4	192	v	v
Clear liquid	60	0.5	1.10~1.13	15~35	1.503	400~600	40.2	280	-	v
Clear liquid	60	0.5	0.91~0.95	2~8	1.453	100~300	27.1	196	v	v
Clear liquid	100	0.5	1.12-1.15	100-200	1.575	100~300	40.5	268	v	v
Clear liquid	100	0.5	1.09~1.11	130~170	1.552	100~300	39.6	310	-	-
Clear liquid	60	0.5	1.01~1.03	3~8	1.436	300~600	31.2	188	v	v
Clear liquid	100	0.5	1.08~1.11	12~18	1.462	100~300	35.5	200	v	v
Clear liquid	100	0.5	1.06~1.07	5~6	1.455	600 max.	34.9	154	v	v
Clear liquid	100	0.5	0.86~0.88	4~8	1.442	150~250	29	240	v	v
Solid	60	0.5	-	-	-	150~250	-	324	v	v
Clear liquid	60	0.5	0.85~0.95	2~8	1.438	100~300	27.1	212	v	v
Clear liquid	60	0.5	0.86~0.89	2~8	1.434	200~500	27.1	184-212	v	v
Clear liquid	60	0.2	0.85~0.90	2~7	1.442	100~300	29.3	226	-	v
Clear liquid	60	0.5	1.07~1.09	5~15	1.511	200~600	38.3	206	-	v
Clear liquid	60	0.2	0.85~0.90	3~9	1.447	100~300	29.1	268	-	v
Clear liquid	60	0.5	0.86~0.89	4~8	1.441	900~1,100	28.9	254	v	v

MONOFUNCTIONAL MONOMERS

Etermer	Chemical Description	Characteristics
EM315-LM	Lauryl Methacrylate, LMA	 <ul style="list-style-type: none"> Low shrinkage Good flexibility Good weatherability Good water resistance
EM35	Stearyl Methacrylate, SMA	 <ul style="list-style-type: none"> Low shrinkage Good flexibility Good weatherability Good water resistance
EM70	Isobornyl Acrylate, IBOA	 <ul style="list-style-type: none"> Good adhesion Good toughness Excellent abrasion resistance Good water and heat resistance
EM75	Benzyl Acrylate, BA	 <ul style="list-style-type: none"> Low viscosity Good solvency High reactivity
EM77	Benzyl Methacrylate BMA	 <ul style="list-style-type: none"> Low viscosity High refraction index
EM90	Isobornyl Methacrylate, IBOMA	 <ul style="list-style-type: none"> Good adhesion Good toughness Excellent abrasion resistance Good water and heat resistance

DIFUNCTIONAL MONOMERS

Etermer	Chemical Description	Characteristics
EM2202	Hydroxypivalyl Hydroxypivalate Diacrylate, HPHPDA	 <ul style="list-style-type: none"> Low irritation Good solvency Good flexibility Good water resistance Improvement for adhesion on metals
EM2203	1,9-Nonanediol Diacrylate NDDA	 <ul style="list-style-type: none"> Good weatherability Good adhesion for plastic substrates Good solvency for acrylate oligomers
EM2204	Tricyclodecane Dimethanol Diacrylate, DCPDA	 <ul style="list-style-type: none"> High Tg Excellent yellow resistance Good toughness and hardness Good heat and chemical resistance Excellent low shrinkage and curing rate
EM2205	Dioxane Glycol Diacrylate, DOGDA	 <ul style="list-style-type: none"> High Tg Fast cure rate Good heat and chemical resistance Low volume shrinkage (after curing) Improved adhesion on non-porous substrates
EM2206	Di-functional Acrylate Monomer	<p>—</p> <ul style="list-style-type: none"> High Refractive Index Good Thermal Resistance
EM221	1,6-Hexanediol Diacrylate, HDDA	 <ul style="list-style-type: none"> Good weatherability Good adhesion for plastic substrates Good solvency for acrylate oligomers
EM2211	Ethoxylated 1,6-Hexanediol Diacrylate, HD2EODA	 <ul style="list-style-type: none"> Low skin irritation Low volatility and viscosity
EM222	Dipropylene Glycol Diacrylate, DPGDA	 <ul style="list-style-type: none"> Fast cure rate Excellent solvency Low volatility and viscosity

Typical Physical & Chemical Properties

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
Clear liquid	60	0.5	0.86~0.89	4~8	1.441	100~300	28.9	254	v	v	
Solid	100	0.5	-	-	-	230~330	-	338	-	v	
Clear liquid	50	0.5	0.98~1.00	5~15	1.474	80~300	29.5	208	v	v	
Clear liquid	100	0.5	1.05~1.08	3~8	1.517	100~300	36.3	162	v	v	
Clear liquid	30	0.5	1.035~1.045	2~3	1.516	200max.	36.1	176	-	v	
Clear liquid	40	0.5	0.97~0.99	2~10	1.474	120~180	29.4	222	v	v	

Typical Physical & Chemical Properties

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
Clear liquid	100	0.5	1.04~1.06	15~35	1.453	400~600	32	312	v	v	
Clear liquid	100	0.2	0.98~1.00	5~15	1.458	100~300	34.7	304	-	v	
Clear liquid	100	0.5	1.09~1.11	110~150	1.501	500~800	37.9	304	v	v	
Clear liquid	60	0.5	1.07~1.09	200~400	1.470	100~300	34.2	326	v	v	
Clear liquid	100	0.5	1.155~1.165	1,500~2,500	1.589	400~600	42.5	-	-	v	
Clear liquid	60	0.2	1.01~1.03	5~10	1.455	100~250	34.5	226	v	v	
Clear liquid	70	0.5	1.04~1.07	15~20	1.459	100~300	37	314	v	v	
Clear liquid	60	0.5	1.04~1.10	7~13	1.449	400~600	32.4	242	v	v	

DIFUNCTIONAL MONOMERS

Estermer	Chemical Description	Characteristics
EM223	Tripropylene Glycol Diacrylate, TPGDA 	<ul style="list-style-type: none"> Good flexibility Low volatility and viscosity
EM224	Polyethylene Glycol (200) Diacrylate, PEG(200)DA 	<ul style="list-style-type: none"> Low volatility Good flexibility Low skin irritation
EM2241	1,4-Butanediol Diacrylate, 1,4-BDDA 	<ul style="list-style-type: none"> Hydrophobic High reactivity Good solvency
EM225	Neopentyl Glycol Diacrylate, NPGDA 	<ul style="list-style-type: none"> High reactivity Good solvency Good solvent resistance Good scratch resistance
EM2251	Propoxylated Neopentyl Glycol Diacrylate, NPG2PODA 	<ul style="list-style-type: none"> Improved flexibility Improved adhesion Low surface tension Low volume shrinkage in polymerization
EM226	Polyethylene Glycol (400) Diacrylate, PEG(400)DA 	<ul style="list-style-type: none"> Low volatility Water soluble Good flexibility
EM2260	Ethoxylated Bisphenol-A Diacrylate BPA2EODA 	<ul style="list-style-type: none"> Low odor High hardness High refractive index Good solvent resistance
EM2261	Ethoxylated Bisphenol-A Diacrylate, BPA4EODA 	<ul style="list-style-type: none"> Low odor High hardness High refractive index Good solvent resistance
EM2263	Ethoxylated Bisphenol-A Diacrylate, BPA3EODA 	<ul style="list-style-type: none"> Low odor High hardness High refractive index Good solvent resistance
EM2265	Ethoxylated Bisphenol-A Diacrylate, BPA10EODA 	<ul style="list-style-type: none"> Low odor Good flexibility Low skin irritation Excellent balance of hydrophobic/hydrophilic properties
EM227	Polyethylene Glycol (600) Diacrylate, PEG(600)DA 	<ul style="list-style-type: none"> Low volatility Water soluble Good flexibility
EM228	Polyethylene Glycol (300) Diacrylate, PEG(300)DA 	<ul style="list-style-type: none"> Low volatility Good flexibility Low skin irritation
EM2280	2-Methyl-1,3-Propanediol Diacrylate, MPDDA 	<ul style="list-style-type: none"> High reactivity Excellent solvency
EM2288	Ethoxylated 2-Methyl-1,3-Propanediol Diacrylate, MPD2EODA 	<ul style="list-style-type: none"> Low odor Good flexibility Low skin irritation
EM229	2-Butyl-2-Ethyl-1,3-Propanediol Diacrylate, BEPDDA 	<ul style="list-style-type: none"> Low shrinkage Improved leveling Excellent water resistance High solubility in hydrocarbons
EM320	Ethylene Glycol Dimethacrylate, EGDMA 	<ul style="list-style-type: none"> Good heat resistance Good weatherability Good abrasion resistance Good chemical resistance
EM324	Polyethylene Glycol (200) Dimethacrylate, PEG(200)DMA 	<ul style="list-style-type: none"> Good flexibility Low skin irritation
EM326	Polyethylene Glycol (400) Dimethacrylate, PEG(400)DMA 	<ul style="list-style-type: none"> Hydrophilic Good flexibility Low skin irritation

Typical Physical & Chemical Properties										
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
Clear liquid	50	0.5	1.03~1.05	8~16	1.448	600 max.	32	300	v	v
Clear liquid	70	0.5	1.08~1.13	10~30	1.462	600 max.	39	308	v	v
Clear liquid	100	0.5	1.05~1.07	5~10	1.454	100~300	34.8	198	-	v
Clear liquid	60	0.5	1.02~1.05	4~12	1.450	100~300	31	212	-	v
Clear liquid	80	0.5	1.00~1.03	10~20	1.446	200~500	30.2	328	v	v
Clear liquid	100	0.5	1.11~1.12	30~70	1.467	400~600	40	508	v	v
Clear liquid (60°C)	100	0.5	-	-	1.550	100~300	-	424	v	v
Clear liquid	70	0.5	1.13~1.15	800~1,300	1.536	100~300	42.9	512	v	v
Clear liquid	100	0.2	1.14~1.15	1,300~2,000	1.545	200~400	42	468	v	v
Clear liquid	100	0.5	1.11~1.17	350~800	1.518	100~300	43	776	v	v
Clear liquid	100	0.5	1.11~1.14	80~120	1.467	400~600	41.4	708	v	v
Clear liquid	50	0.5	1.11~1.12	25~45	1.464	400~600	39	408	v	v
Clear liquid	100	0.5	1.04~1.06	5~10	1.454	100~300	31.7	198	-	-
Clear liquid	100	0.5	1.04~1.08	13~20	1.457	300~500	35	286	-	-
Clear liquid	100	0.5	0.99~1.00	10~20	1.462	100~300	31.1	268	-	-
Clear liquid	60	2	1.05~1.07	3~8	1.456	100~300	31.7	198	v	v
Clear liquid	60	0.5	1.07~1.09	10~18	1.460	100~300	34.6	336	v	v
Clear liquid	60	0.5	1.09~1.10	30~40	1.464	400~600	38	536	v	v

DIFUNCTIONAL MONOMERS

Etermer	Chemical Description	Characteristics
EM3260	Ethoxylated Bisphenol-A Dimethacrylate, BPA2EODMA	<ul style="list-style-type: none"> High reactivity High hardness High refractive index Good abrasion resistance Good chemical resistance
EM3261	Ethoxylated Bisphenol-A Dimethacrylate, BPA4EODMA	<ul style="list-style-type: none"> High reactivity Good heat resistance Low skin irritation Low odor and volatility
EM3265	Ethoxylated Bisphenol-A Dimethacrylate, BPA10EODMA	<ul style="list-style-type: none"> Low volatility High reactivity Good heat resistance
EM327	Polyethylene Glycol (600) Dimethacrylate, PEG(600)DMA	<ul style="list-style-type: none"> Water soluble Good flexibility Low skin irritation
EM328	Triethylene Glycol Dimethacrylate, 3EGDMA	<ul style="list-style-type: none"> Low skin irritation Good heat and chemical resistance
EM329	Diethylene Glycol Dimethacrylate, DEGDMA	<ul style="list-style-type: none"> Good solvency Low skin irritation Good abrasion and water resistance Good hardness and impact strength
EM39	2-Hydroxyethyl methacrylate phosphate, HEMAP	<ul style="list-style-type: none"> Excellent improvement for adhesion on metals

TRIFUNCTIONAL MONOMERS

Etermer	Chemical Description	Characteristics
EM2305	Trifunctional Acid Ester	<ul style="list-style-type: none"> Light color Low viscosity Good chemical resistance Excellent improvement for adhesion on metal
EM2308	Tris(2-Hydroxy Ethyl) Isocyanurate Triacrylate, THEICTA	<ul style="list-style-type: none"> Excellent hardness Good impact strength Excellent abrasion resistances Excellent water and chemical resistance
EM2308-1	Tris(2-Hydroxy Ethyl) Isocyanurate Triacrylate, THEICTA	<ul style="list-style-type: none"> Excellent hardness Good impact strength Excellent abrasion resistances Excellent water and chemical resistance
EM231	Trimethylolpropane Triacrylate, TMPTA	<ul style="list-style-type: none"> High gloss and hardness Good abrasion resistance High reactivity and crosslink density
EM235	Pentaerythritol Triacrylate, PET3A	<ul style="list-style-type: none"> Fast curing rate Excellent hardness High crosslink density Excellent solvent resistance
EM235-1	Pentaerythritol Triacrylate, PET3A	<ul style="list-style-type: none"> High Purity Fast curing rate Excellent hardness High crosslink density Excellent solvent resistance

Typical Physical & Chemical Properties

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
Clear liquid	100	0.5	1.11~1.13	900~1,300	1.540	100~300	38.7	452	v	v
Clear liquid	60	0.5	1.11~1.13	500~800	1.532	100~250	39.4	540	v	v
Clear liquid	100	0.5	1.11~1.13	350~450	1.511	100~250	41.9	804	v	v
Clear liquid	30	0.15	1.10~1.11	55~75	1.466	70~150	38.9	736	v	v
Clear liquid	80	0.5	1.07~1.08	5~15	1.458	300 max.	34.7	286	v	v
Clear liquid	100	0.5	1.055~1.075	5~10	1.456	500~700	33.8	242	-	v
Light yellow liquid	2 max.(G)	280~300	1.27~1.29	1,000~1,300	1.464	300 max.	35.3	245	v	v

Typical Physical & Chemical Properties

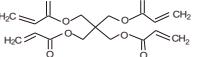
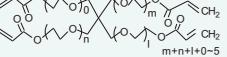
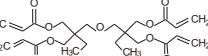
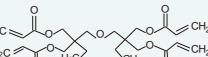
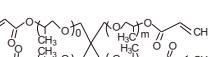
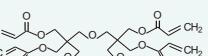
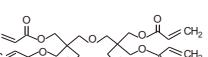
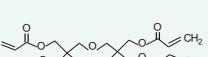
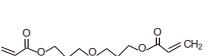
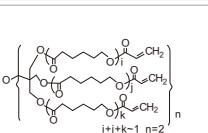
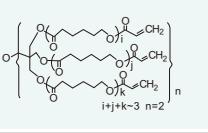
Appearance	Color (APHA)	Acid Value (mg KOH/g)	Sp.Gravity (at 25°C)	Viscosity (cps at 25°C)	RI (nD at 25°C)	Inhibitor (MEHQ ppm)	Surface Tension	Mw g/mole	Regulatory Status	
									REACH	TSCA
Yellow liquid	5 max.(G)	150-190	1.18-1.20	240~350	1.469	350 max.	36.3	266	v	v
Solid	1 max.(G)	0.5	-	-	-	300~600	-	423	v	v
Clear liquid	80	0.5	1.14~1.17	300~400	1.480	600 max.	36.5	-	v	v
Clear liquid	60	0.2	1.09~1.12	70~110	1.472	100~300	35	296	v	v
Clear liquid	80	0.5	1.168~1.182	400~550	1.483	400~600	38	298	v	v
Clear liquid	30	0.5	1.168~1.182	400~550	1.483	400~600	38	298	v	v

TRIFUNCTIONAL MONOMERS

Estermer	Chemical Description	Characteristics
EM235-A	Pentaerythritol Triacrylate, PET3A 	<ul style="list-style-type: none"> Fast curing rate Excellent hardness High crosslink density Excellent solvent resistance
EM235-B	Pentaerythritol Triacrylate, PET3A 	<ul style="list-style-type: none"> Fast curing rate Excellent hardness High crosslink density Excellent solvent resistance
EM2380	Ethoxylated Trimethylolpropane Triacrylate, TMP3EOTA 	<ul style="list-style-type: none"> Good hardness Low skin irritation More flexible than EM231
EM2381	Propoxylated Trimethylolpropane Triacrylate, TMP3POTA 	<ul style="list-style-type: none"> Good flexibility Low skin irritation Good water resistance
EM2382	Ethoxylated Trimethylolpropane Triacrylate, TMP9EOTA 	<ul style="list-style-type: none"> Low skin irritation Excellent flexibility Fast surface curing Low volume shrinkage
EM2383	Propoxylated Trimethylolpropane Triacrylate, TMP4.5POTA 	<ul style="list-style-type: none"> Low skin irritation Good pigment wetting Good adhesion and flexibility
EM2384	Propoxylated Glyceryl Triacrylate, G3POTA 	<ul style="list-style-type: none"> Fast curing rate Low skin irritation Good pigment wetting Good hardness and flexibility
EM2385	Propoxylated Glyceryl Triacrylate, G6.6POTA 	<ul style="list-style-type: none"> Good flexibility Low skin irritation
EM2386	Ethoxylated Trimethylolpropane Triacrylate, TMP15EOTA 	<ul style="list-style-type: none"> Water soluble Good flexibility Low skin irritation
EM2387	Propoxylated Glyceryl Triacrylate, G3.5POTA 	<ul style="list-style-type: none"> Fast curing rate Low skin irritation Good pigment wetting Good hardness and flexibility
EM331	Trimethylolpropane Trimethacrylate, TMPTMA 	<ul style="list-style-type: none"> High crosslink density Good heat and solvent resistance Good hardness and scratch resistance
EM331-HQ	Trimethylolpropane Trimethacrylate, TMPTMA 	<ul style="list-style-type: none"> High crosslink density Good heat and solvent resistance Good hardness and scratch resistance
EM3380	Ethoxylated Trimethylolpropane Trimethacrylate, TMP3EOTMA 	<ul style="list-style-type: none"> Low volatility Good toughness Low skin irritation High crosslink density
EM3382	Ethoxylated Trimethylolpropane Trimethacrylate, TMP9EOTMA 	<ul style="list-style-type: none"> Low volatility Good toughness Low skin irritation

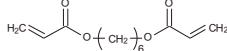
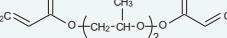
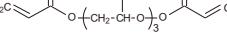
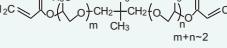
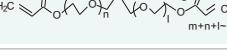
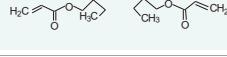
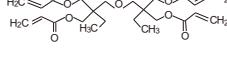
Typical Physical & Chemical Properties										
Appearance	Color (APHA)	Acid Value (mg KOH/g)	Sp.Gravity (at 25°C)	Viscosity (cps at 25°C)	RI (nD at 25°C)	Inhibitor (MEHQ ppm)	Surface Tension	Mw g/mole	Regulatory Status REACH	TSCA
Clear liquid	80	2	1.168~1.190	600~900	1.484	5500 max.	38	298	v	v
Clear liquid	80	2	1.168~1.190	900~1,200	1.484	5500 max.	38	298	v	v
Clear liquid	50	0.2	1.101~1.109	50~70	1.469	180~350	36.9	428	v	v
Clear liquid	60	0.3	1.04~1.07	70~100	1.459	400~600	32.8	470	v	v
Clear liquid	60	0.5	1.09~1.12	80~110	1.470	200~380	39.1	692	v	v
Clear liquid	100	0.5	1.02~1.10	80~130	1.457	300~600	33.5	557	v	v
Clear liquid	100	0.5	1.082~1.105	70~100	1.461	100~300	34.1	428	v	v
Clear liquid	100	0.5	1.05~1.10	80~110	1.457	300~600	35.3	636.8	v	v
Clear liquid	60	0.5	1.105~1.124	120~160	1.470	140~350	41.1	910	v	v
Clear liquid	100	0.5	1.08~1.11	70~100	1.461	200~500	33.9	457	v	v
Clear liquid	100	0.2	1.06~1.07	35~50	1.471	150~400	32.2	338	v	v
Clear liquid	100	0.2	1.06~1.07	35~50	1.471	80~150; (HQ)	32.2	338	v	v
Clear liquid	80	0.5	1.06~1.08	25~45	1.469	100~300	36.2	470	v	v
Clear liquid	50	0.5	1.085~1.095	60~90	1.470	250~450	38.4	734	v	v

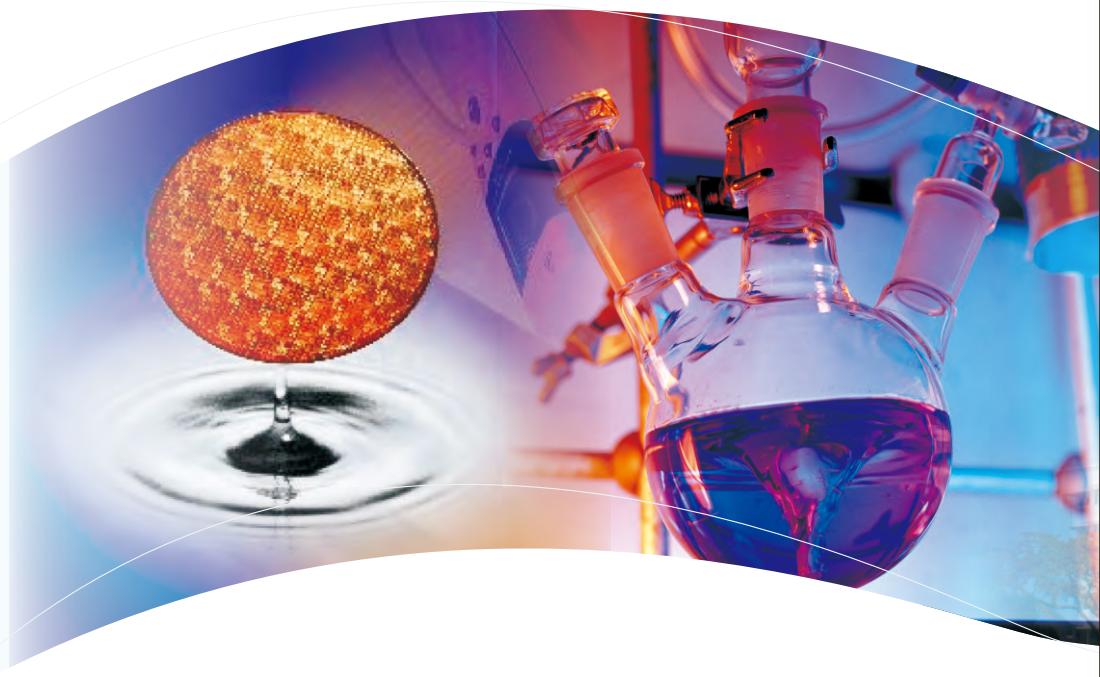
**MULTI-
FUNCTIONAL
MONOMERS**

Etermer	Chemical Description	Characteristics
EM241	Pentaerythritol Tetraacrylate, PET4A	 <ul style="list-style-type: none"> • Low volatility • High reactivity • High crosslink density
EM2411	Ethoxylated Pentaerythritol Tetraacrylate, PET5EO4A	 <ul style="list-style-type: none"> • High reactivity • Low skin irritation • High crosslink density • More flexible than EM241
EM242	Ditrimethylolpropane Tetraacrylate, DiTMP4A	 <ul style="list-style-type: none"> • Fast cure rate • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM242HW	Ditrimethylolpropane Tetraacrylate, DiTMP4A	 <ul style="list-style-type: none"> • Fast cure rate • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM2421	Propoxylated Pentaerythritol Tetraacrylate, PET5PO4A	 <ul style="list-style-type: none"> • High reactivity • Low skin irritation • Good weatherability • High crosslink density
EM263	Dipentaerythritol Hexaacrylate, DPHA	 <ul style="list-style-type: none"> • High reactivity • For LPSM application • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM264	Dipentaerythritol Hexaacrylate, DPHA	 <ul style="list-style-type: none"> • High reactivity • Low solvent content • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM265	Dipentaerythritol Hexaacrylate, DPHA	 <ul style="list-style-type: none"> • High reactivity • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM266	Dipentaerythritol Hexaacrylate, DPHA	 <ul style="list-style-type: none"> • High viscosity • High reactivity • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM267	Dipentaerythritol Hexaacrylate, DPHA	 <ul style="list-style-type: none"> • High reactivity • Electronic grade • High crosslink density • Good abrasion resistance • Good chemical and water resistance
EM2692	2 mole Caprolactone modified Dipentaerythritol Hexaacrylate DP2CAHA	 <ul style="list-style-type: none"> • High reactivity • Electronic grade • High crosslink density • More flexible than EM265 • Good abrasion resistance • Good chemical and water resistance
EM2696	6 mole Caprolactone modified Dipentaerythritol Hexaacrylate DP6CAHA	 <ul style="list-style-type: none"> • High reactivity • High crosslink density • More flexible than EM265 • Good abrasion resistance • Good chemical and water resistance

Typical Physical & Chemical Properties										
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
Solid or Clear liquid	100	0.5	1.17~1.18	400~650	1.483	400~600	37.6	352	v	v
Clear liquid	100	0.5	1.14~1.16	120~170	1.471	100~300	38.6	572	v	v
Clear liquid	100	0.5	1.095~1.105	400~700	1.476	400~600	35	482	v	v
Clear liquid	100	0.5	1.09~1.11	600~700	1.476	400~600	35	482	v	v
Clear liquid	100	0.5	1.07~1.09	180~240	1.462	300~500	33.1	642	-	-
Clear liquid	50	0.5	1.17~1.19	5,000~7,000	1.487	400~600	42	578	v	v
Clear liquid	50	0.5	1.17~1.19	5,000~7,000	1.487	400~600	42	578	v	v
Clear liquid	50	0.5	1.17~1.19	5,000~7,000	1.487	400~600	42	578	v	v
Clear liquid	100	0.5	1.18~1.20	10,000~14,000	1.487	400~600	48	578	v	v
Clear liquid	50	0.1	1.18~1.19	5,000~7,000	1.487	350~600	42	578	v	v
Clear liquid	100	1.0	1.15~1.17	1,500~2,500	1.484	1000 max.	39.9	806	-	v
Clear liquid	100	1.0	1.12~1.15	900~1,500	1.480	1000 max.	40.3	1262	-	v

TOLUENE FREE MONOMERS

Etermer	Chemical Description	Characteristics
EM221-TF	1,6-Hexanediol Diacrylate, HDDA	 <ul style="list-style-type: none"> Good weatherability Good adhesion for plastic substrates Good solvency for acrylate oligomers
EM222-TF	Dipropylene Glycol Diacrylate, DPGDA	 <ul style="list-style-type: none"> Fast cure rate Excellent solvency Low volatility and viscosity
EM223-TF	Tripropylene Glycol Diacrylate, TPGDA	 <ul style="list-style-type: none"> Good flexibility Low volatility and viscosity
EM2251-TF	Propoxylated Neopentyl Glycol Diacrylate, NPG2PODA	 <ul style="list-style-type: none"> Improved flexibility Improved adhesion Low surface tension Low volume shrinkage in polymerization
EM231-TF	Trimethylolpropane Triacrylate, TMPTA	 <ul style="list-style-type: none"> High gloss and hardness Good abrasion resistance High reactivity and crosslink density
EM2380-TF	Ethoxylated Trimethylolpropane Triacrylate, TMP3EOTA	 <ul style="list-style-type: none"> Good hardness Low skin irritation More flexible than EM231
EM2387-TF	Propoxylated Glyceryl Triacrylate, G3.5POTA	 <ul style="list-style-type: none"> Fast curing rate Low skin irritation Good pigment wetting Good hardness and flexibility
EM242-TF	Ditrimethylolpropane Tetraacrylate, DiTMP4A	 <ul style="list-style-type: none"> Fast cure rate High crosslink density Good abrasion resistance Good chemical and water resistance
EM242-TFHV	Ditrimethylolpropane Tetraacrylate, DiTMP4A	 <ul style="list-style-type: none"> Fast cure rate High viscosity High crosslink density Good abrasion resistance Good chemical and water resistance



Typical Physical & Chemical Properties										
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
Clear liquid	60	0.2	1.01~1.03	5~10	1.455	100~250	34.5	226	v	v
Clear liquid	60	0.5	1.04~1.10	7~13	1.449	400~600	32.4	242	v	v
Clear liquid	50	0.5	1.03~1.05	8~16	1.448	600 max.	32	300	v	v
Clear liquid	80	0.5	1.00~1.03	10~20	1.446	200~500	30.2	328	v	v
Clear liquid	60	0.2	1.09~1.12	70~110	1.472	100~300	35	296	v	v
Clear liquid	50	0.2	1.101~1.109	50~70	1.469	180~350	36.9	428	v	v
Clear liquid	100	0.5	1.08~1.11	70~100	1.461	200~500	33.9	457	v	v
Clear liquid	100	0.5	1.095~1.105	400~700	1.476	400~600	35	482	v	v
Clear liquid	100	0.5	1.09~1.11	1,000~1,300	1.476	400~600	35	482	v	v



OLIGOMERS



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**URETHANE
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6101	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Low viscosity • Good flexibility • Good adhesion 	<ul style="list-style-type: none"> • UV Inkjet
6103	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Excellent yellowing resistance • Good hardness • Fast curing speed 	<ul style="list-style-type: none"> • UV coating with excellent weather resistance for PC car-lamp
6106	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Excellent yellowing resistance • Good adhesion • Good flexibility 	<ul style="list-style-type: none"> • UV coating with excellent weather resistance for PC car-lamp
6118	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • High gloss • Good flexibility • Fast curing speed • Excellent chemical resistance 	<ul style="list-style-type: none"> • UV wood and plastic coatings • UV screen ink • UV screen ink
611A-85	Aliphatic Urethane Acrylate Diluted in 15% TPGDA	<ul style="list-style-type: none"> • Low skin irritation • Good yellowing resistance • Good hardness and toughness 	<ul style="list-style-type: none"> • Coatings • Inks
611B-85	Aliphatic Urethane Acrylate Diluted in 15% HDDA	<ul style="list-style-type: none"> • Good yellowing resistance • Good hardness and toughness • Good gloss retention 	<ul style="list-style-type: none"> • Printing and varnishing for plasticized PVC, wood and PVC floor-tiles
6112-100	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good yellowing resistance • Good toughness • Good gloss retention 	<ul style="list-style-type: none"> • Coatings • Inks • Printing and varnishing for plasticized PVC, wood and PVC floor-tiles
6113	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good toughness • Good yellowing resistance • Improves adhesion 	<ul style="list-style-type: none"> • Coatings • Inks • Adhesives
6115J-80	Aliphatic Urethane Acrylate Diluted in 20% IBOA	<ul style="list-style-type: none"> • Excellent weatherability • Good flexibility • Good gloss retention • Low shrinkage • Good adhesion on metal substrates 	<ul style="list-style-type: none"> • Coatings • Inks • Adhesives
6121F-80	Aromatic Urethane Acrylate Diluted in 20% DPGDA	<ul style="list-style-type: none"> • Good elasticity and flexibility • Good abrasion resistance • Good adhesion • High chemical resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood finishes • Coating for plastics • Lithographic and screen ink vehicles
6123	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Fast curing speed • Good leveling • Good solvent resistance • Good weather resistance 	<ul style="list-style-type: none"> • Plastics varnishes • Large area spraying for plastics
6126	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good heat resistance • Fast curing speed • Good adhesion at high temperature 	<ul style="list-style-type: none"> • UV non-yellowing coating for PC car-lamp
6127	Aliphatic Urethane Acrylate Oligomer	<ul style="list-style-type: none"> • Excellent water resistance • Excellent yellowing resistance • Better elongation for adhesion 	<ul style="list-style-type: none"> • UV. adhesive • UV. plastic coating
6130B-80	Aliphatic Urethane Acrylate Diluted in 20% HDDA	<ul style="list-style-type: none"> • Low odor • High crosslink density • Good toughness 	<ul style="list-style-type: none"> • Coatings for paper, plastics
6131-1	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good yellowing resistance • Good gloss retention • Good flexibility and softness 	<ul style="list-style-type: none"> • Printing and varnishing for plasticized PVC, wood, and PVC floor tiles
6134B-80	Aliphatic Urethane Acrylate Diluted in 20% HDDA	<ul style="list-style-type: none"> • Excellent abrasion-resistance • Good yellowing resistance • Good water resistance • Good hardness and toughness 	<ul style="list-style-type: none"> • Wood coating • Screen inks • Overprint varnishes • Plastics coating for ABS, PC, PVC
6141H-80	Aliphatic Urethane Acrylate Diluted in 20% TMP3EOTA	<ul style="list-style-type: none"> • Good elasticity and flexibility • Good abrasion resistance • Good adhesion • Fast curing speed • Good weather performance 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • Coating for wood and plastics • UV. inks • UV. cured adhesives

Typical Physical & Chemical Properties									
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status		
							REACH	TSCA	
1	Clear & Clean	1	-	20~40	-	-	-	-	
6	Clear & Clean	1	-	3,800~5,000	-	-	-	-	
2	Clear & Clean	1	-	9,000~14,000	-	-	-	-	
2	Clear & Clean	1	-	22,000~32,000	-	-	-	-	
2	Clear & Clean	1	33.6	85,000~115,000	49.9	84A	V	V	
2	Clear & Clean	1	28.4	22,000~32,000	52.9	89A	V	V	
2	Clear & Clean	1	49.4	6,000~7,500(60°C)	47.7	96A	V	V	
2	Clear & Clean	1	120	8,000~12,000	-60.8	40A	-	-	
2	Clear & Clean	1	45.2	2,600~4,200	31.8	70A	-	NOC	
2	Clear & Clean	3	16.1	19,000~32,000	27.4	70A	V	V	
2	Clear & Clean	1	51.7	10,000~15,000	51.7	96A	V	V	
2	Clear & Clean	1	-	30,000~40,000	-	-	-	-	
2	Clear & Clean	1	83	3,000~5,500(60°C)	-53	-	-	-	
3	Clear & Clean	1	13	40,000 ~ 60,000	65.6	90A	V	V	
2	Clear & Clean	1	-	3,000~4,000	67	91A	V	V	
3	Clear & Clean	1	-	120,000~220,000	72.2	95A	V	V	
2	Clear & Clean	1	-	30,000 ~ 45,000	44.4	83A	-	-	

**URETHANE
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6142H-80	Aliphatic Urethane Acrylate Diluted in 20% TMP3EOTA	<ul style="list-style-type: none"> • Good elasticity and flexibility • Good abrasion resistance • Good adhesion • Light color 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • Coating for wood and plastics • UV. inks • Adhesives
6143A-80	Aliphatic Urethane Acrylate Diluted in 20% TPGDA	<ul style="list-style-type: none"> • Excellent flexibility • Improves adhesion 	<ul style="list-style-type: none"> • Adhesives • Coatings on metal, optical, paper • Screen inks
6145-100	Aliphatic Urethane Hexaacrylate.	<ul style="list-style-type: none"> • Good elasticity and flexibility • Good abrasion resistance • Fast curing speed • Good weather resistance 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • UV. plastic coating • UV. inks
6145-100H	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good elasticity and flexibility • Good abrasion resistance • Good hardness 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • UV. plastic coating • UV. inks
6146-100	Aromatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good elasticity and flexibility • Good abrasion resistance • Fast curing speed • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • Coatings for PMMA, ABS • UV. inks
6147	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good abrasion resistance • Good yellowing resistance • Good water resistance • Good flexibility 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • Coatings for PMMA, ABS • UV. inks
6148J-75	Aliphatic Urethane Acrylate Diluted in 25% IBOA	<ul style="list-style-type: none"> • Excellent toughness • Good yellowing resistance • Improves adhesion • Good abrasion-resistance 	<ul style="list-style-type: none"> • Adhesives • Screen inks • Metal coatings
6148T-85	Aliphatic Urethane Acrylate Diluted in 15% EOEOEA	<ul style="list-style-type: none"> • Excellent toughness • Excellent elongation • Improves adhesion • Good abrasion resistance 	<ul style="list-style-type: none"> • Adhesives • Screen inks • Metal coatings
615-100	Polyether Polyol Based- Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Excellent flexibility • Fast curing speed • Light color 	<ul style="list-style-type: none"> • UV. inks • Coatings • Adhesives • Matt varnishes
6150-100	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Excellent yellowing resistance • Fast curing speed • Good abrasion resistance • Good water resistance • Good toughness and hardness 	<ul style="list-style-type: none"> • Screen inks • Adhesives • Plastic coatings
6151	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Good Adhesion to ABS/PC Substrate • Good abrasion • Good yellowing resistance 	<ul style="list-style-type: none"> • Overprinting varnishes for paper and board • Wood coating • UV. plastic coating • UV. inks
6152B-80	Aliphatic Urethane Acrylate Diluted in 20% HDDA	<ul style="list-style-type: none"> • Good Anti-Static • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • Anti-static coatings • UV. plastic coating
6153-1	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Low viscosity • Good toughness • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. primer coating with very good adhesion on melamine paper. (Melamine paper, widely used for furniture applications)
6153-3	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good elongation • Good yellowing resistance • Good hardness and toughness • Excellent adhesion 	<ul style="list-style-type: none"> • UV primer for MDF covered with melamine paper • UV metal coating
6154B-80	Aliphatic Urethane Acrylate Diluted in 20% HDDA	<ul style="list-style-type: none"> • Low viscosity • Stain resistance • Good adhesion 	<ul style="list-style-type: none"> • Anti-stain coatings • UV. plastic coating
6155W	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Good compatibility with water • Improve solvent resistance and water resistance of the film 	<ul style="list-style-type: none"> • UV. topcoat for plastic • UV. wood topcoat

Typical Physical & Chemical Properties								
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
							REACH	TSCA
2	Clear & Clean	1	-	25,000 ~ 35,000	29.5	89A	-	NOC
2	Clear & Clean	1	23.3	18,000 ~ 30,000	21.8	42A	-	-
6	Clear & Clean	1	-	55,000~75,000	104.1	27D	v	v
6	Clear & Clean	1	-	70,000~90,000	103.7	28D	v	v
6	Clear & Clean	1	-	30,000~40,000	104.6	33D	v	v
6	Clear & Clean	1	-	5,000~6,000	85.5	18D	v	v
2	Clear & Clean	1	238.5	90,000~150,000	19.7	63A	v	v
2	Clear & Clean	1	-	100,000~150,000	-23.5	21A	v	v
2	Clear & Clean	1	8.1	10,000~20,000	-37.1	43A	v	v
6	Clear & Clean	1	-	3,000~5,000	80.6	11D	v	v
2	Clear & Clean	1	-	30,000~40,000	60.3	91A	v	v
2	Clear & Clean	1	-	22,000~30,000	-12	86A	-	-
-	Clear & Clean	1	-	1,500~2,500	85.5	44A	v	v
2	Clear & Clean	1	-	90,000~150,000	-	-	-	-
2	Clear & Clean	1	-	5,000~9,000	83.6	84A	v	NOC
2	Clear & Clean	1	-	700~1,400	-	-	-	-

**URETHANE
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6157B-80	Aliphatic Urethane Acrylate Diluted in 20% HDDA	<ul style="list-style-type: none"> • Good water resistance • Good heat resistance • Good yellowing resistance • Good weather resistance 	<ul style="list-style-type: none"> • Coatings • Inks
6158B-80	Aliphatic Urethane Acrylate Diluted in 20% HDDA	<ul style="list-style-type: none"> • Good heat resistance • Good yellowing resistance • Good weather resistance 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • UV. plastic coating • UV. inks
6160B-70	Aliphatic Urethane Acrylate Diluted in 30% HDDA	<ul style="list-style-type: none"> • Good leveling • Good yellowing resistance • Good hardness 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • UV. plastic coating • UV. inks
6161-100	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Fast curing speed • Good abrasion resistance • Good solvent resistance 	<ul style="list-style-type: none"> • Coatings for PC, ABS and PET
6164	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good curing speed • Good leveling • High gloss 	<ul style="list-style-type: none"> • UV. plastic coating
6170	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Excellent yellowing resistance 	<ul style="list-style-type: none"> • UV Plastic coating • UV Wood coating • UV. VM topcoat
6171	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Good solvent resistance • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. topcoat for plastics • Large area UV. spraying for plastic
6172-1	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good toughness • Good leveling • Good heat resistance • Good abrasion resistance 	<ul style="list-style-type: none"> • UV. topcoat for thermal set acrylic primer (aluminum or black-color) of notebook computer
6175-1	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> • Excellent solvent resistance • Good yellowing resistance • Good adhesion to metal substrate • Good hardness • Good abrasion resistance 	<ul style="list-style-type: none"> • UV. topcoat for mobile phone covers, cosmetics plastic board, copper and tinplate.
6175-2	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> • High gloss • Good yellowing resistance • Good adhesion to metal substrate • High hardness • Good water resistance 	<ul style="list-style-type: none"> • UV. topcoat for mobile phone covers, cosmetics plastic board, copper and tinplate.
6175-3	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> • Excellent solvent resistance • Good sweat resistance • Good adhesion to metal substrate 	<ul style="list-style-type: none"> • UV. topcoat for mobile phone covers, cosmetics plastic board, copper and tinplate.
6175-6	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> • High hardness • Good leveling • Good metal adhesion 	<ul style="list-style-type: none"> • UV. VM topcoat for Plastic (PC, ABS) • UV topcoat for Metal (Copper, Aluminum, Steel)
6176	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> • Good flexibility • Good water resistance • Good adhesion to metal substrate • Good pigment and dye dispersion 	<ul style="list-style-type: none"> • UV midcoat for mobile phone covers, copper and tinplate.
6177	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good yellowing resistance • Low viscosity 	<ul style="list-style-type: none"> • UV. VM Basecoat on PETG, PCTA and PMMA
6185	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good water resistance • Good flexibility 	<ul style="list-style-type: none"> • UV. VM base coating
6187	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Good yellowing resistance • Good solvent resistance 	<ul style="list-style-type: none"> • UV topcoat for plastic • UV topcoat for wood
6195-100	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Good abrasion resistance • High hardness 	<ul style="list-style-type: none"> • UV topcoat for plastic • UV topcoat application for vacuum metallization • UV coating for artificial marble
6196-100	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Fast curing speed • Good abrasion resistance • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. VM coating • UV. plastic coating • UV. inks

Typical Physical & Chemical Properties								
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
							REACH	TSCA
2	Clear & Clean	1	-	150,000~250,000	81.4	94A	-	-
3.8	Clear & Clean	1	2	40,000~50,000	72.4	94A	-	-
2	Clear & Clean	1	-	30,000~50,000	59.1	5D	-	-
6	Clear & Clean	1	-	13,000~19,000	89.1	25D	v	v
2	Clear & Clean	0.5	-	30,000~50,000	-	-	-	-
4~5	Clear & Clean	1	-	1,000~3,000	-	-	-	-
2	Clear & Clean	1	-	9,000~13,000	49.0	94A	-	-
2	Clear & Clean	1	-	1,700~2,300	78.1	-	-	-
-	Clear & Clean	1	-	5,000~7,000	63	93A	-	v
-	Clear & Clean	1	-	5,000~7,000	64.1	92A	-	v
-	Clear & Clean	1	-	5,000~8,000	81.1	92A	v	v
-	Clear & Clean	1	-	1,000~2,000	-	-	-	-
-	Clear & Clean	1	-	1,300~1,700	44.6	21A	-	-
2	Clear & Clean	1	-	150~200	-	-	-	-
2	Clear & Clean	1	-	25,000~35,000 (60°C)	-	-	-	-
2~3	Clear & Clean	2	-	3,500~5,000	-	-	-	-
10	Clear & Clean	1	-	80,000~130,000	53.9	33D	-	v
15	Clear & Clean	1	-	200,000~300,000	51.5	35D	-	v

**URETHANE
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6197	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good toughness • Good abrasion resistance • Good leveling 	<ul style="list-style-type: none"> • Overprint varnishes for paper & board • UV. plastic coating • UV. inks
6197H	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good toughness • Good abrasion resistance • Good yellowing resistance 	<ul style="list-style-type: none"> • Coats of UV. vacuum metallization • UV. plastic coating
6198	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good anti-crack ability • Good solvent resistance • Good hardness and scratch resistance 	<ul style="list-style-type: none"> • UV. coating for plastics and wood • UV. inks
6198-2	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good Hardness • Good anti-cracking • Good sweat resistance 	<ul style="list-style-type: none"> • UV. coating for plastics and wood • UV. inks
5104D	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Low viscosity • High hardness • Good abrasion resistance • Easy to matting 	<ul style="list-style-type: none"> • UV. non-solvent spray coating • UV. Topcoat coating for wood
5105A	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good toughness • Good yellowing resistance • Good abrasion resistance 	<ul style="list-style-type: none"> • UV. topcoat for wood • UV. Plastic coating
5105C	Multifunctional Aromatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good abrasion resistance • Good heat resistance • Good flexibility 	<ul style="list-style-type: none"> • UV. wood top coating
DR-U006-1	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good water resistance 	<ul style="list-style-type: none"> • Basecoat of UV. vacuum metallization
DR-U010	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good adhesion to pre-treated PP substrates • Good adhesion to aluminum substrates • Good toughness 	<ul style="list-style-type: none"> • UV. screen ink • UV. vacuum metallization primer coatings for pre-treated PP substrates
DR-U011	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Fast curing speed • Good self-matting • Good abrasion resistance 	<ul style="list-style-type: none"> • UV. matting coatings for plastic • UV. matting coatings for wood
DR-U012	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Low viscosity • Fast curing speed • Good surface effect • Good self-matting property 	<ul style="list-style-type: none"> • UV matting topcoat for wood • UV matting topcoat for plastic
DR-U020	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Fast curing speed • Good adhesion on metal substrate • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. metal coating
DR-U021	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good leveling • Good yellowing resistance • Good anti-cracking 	<ul style="list-style-type: none"> • UV. plastic coating • UV. wood coating
DR-U024	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> • Good abrasion resistance • Good yellowing resistance • Good anti-cracking 	<ul style="list-style-type: none"> • UV. plastic coating • UV. wood coating
DR-U025	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Good flexibility • Fast curing speed • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. plastic coating • UV. wood coating • UV. VM coating
DR-U026	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Fast curing speed • Good toughness • Good yellowing resistance 	<ul style="list-style-type: none"> • UV plastic coating (white notebook topcoat)
DR-U027	Aromatic Urethane Acrylate	<ul style="list-style-type: none"> • Good flexibility • Good adhesion • Good boiling water resistance 	<ul style="list-style-type: none"> • UV primer for carbon fiber
DR-U028FS	Aromatic Urethane Acrylate	<ul style="list-style-type: none"> • Good adhesion of glass and metal • Good boiling water resistance • Good thermal shock resistance 	<ul style="list-style-type: none"> • UV bonding glue for glass and metal
DR-U029	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Excellent adhesion for PC • Excellent flexibility • Good surface elasticity 	<ul style="list-style-type: none"> • UV PC transfer printing adhesive
DR-U029-1	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Excellent adhesion for PC • Excellent flexibility • Good surface elasticity 	<ul style="list-style-type: none"> • UV PC transfer printing adhesive

Typical Physical & Chemical Properties								
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg°C	Shore	Regulatory Status	
							REACH	TSCA
6	Clear & Clean	1	-	50,000~70,000	91.3	23D	-	-
6	Clear & Clean	1	-	50,000~65,000	-	-	-	-
2	Clear & Clean	1	4	3,500~6,500(60°C)	-12.8	-	-	-
2	Clear & Clean	1	-	3,500~6,500(60°C)	-	-	-	-
1	Clear & Clean	-	-	600~900	-	-	-	-
6	Clear & Clean	-	-	70,000~90,000	-	-	-	-
6	Clear & Clean	-	-	4,500~7,500(60°C)	-	-	-	-
3	Clear & Clean	1	-	4,500~5,200(60°C)	-	-	-	-
3	Clear & Clean	1	-	8,000~12,000	82	7D	-	-
6	Slight haze	-	-	150~300	124.2	6D	-	-
6	Clear & Clean	1	-	10~30	-	-	-	-
-	Clear & Clean	1	-	10,000~20,000	26.6	92A	-	-
2	Clear & Clean	1	-	4,000~5,000	82.2	95A	-	-
6	Clear & Clean	1	-	2,200~3,200	91.4	93A	-	-
4	Clear & Clean	1	-	20,000~35,000	-	-	-	-
3	Clear & Clean	1	-	25,000~35,000	123.1	83A	-	-
2	Clear & Clean	2	-	600~800	-	-	-	-
2	Clear & Clean	3	-	10,000~15,000(60°C)	-	-	-	-
4	Clear & Clean	1	-	30,000~50,000	-	-	-	-
4	Clear & Clean	1	-	30,000~40,000	-	-	-	-

**URETHANE
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
DR-U037	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> Fast curing speed Good toughness Good yellowing resistance 	<ul style="list-style-type: none"> UV plastic coating UV PC car lamp coating UV white wood coating
DR-U052	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good anti-cracking Good hand sweat resistance Good yellowing resistance 	<ul style="list-style-type: none"> UV Plastic coating UV V.M. topcoat
DR-U053	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good hand sweat resistance Good adhesion Good yellowing resistance 	<ul style="list-style-type: none"> UV Plastic coating UV V.M. topcoat
DR-U058	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good curing speed Excellent soft touch Excellent flexibility 	<ul style="list-style-type: none"> UV soft touch coating
DR-U058-1	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good curing speed Excellent soft touch Solvent-resistance 	<ul style="list-style-type: none"> UV soft touch coating
DR-U060	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Self-initiating effect High hardness Good adhesion 	<ul style="list-style-type: none"> UV thick coating UV color coating
DR-U076	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good water resistance Good toughness Good yellowing resistance Good abrasion resistance 	<ul style="list-style-type: none"> UV Plastic coating UV Topcoat of vacuum metallization
DR-U092	Modified Solvent Based Urethane Acrylate	<ul style="list-style-type: none"> Good wetting Good flexibility Good adhesion for rework Good yellowing resistance 	<ul style="list-style-type: none"> UV. plastic coating Coats of UV. vacuum metallization
DR-U093	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good adhesion on TPU Good toughness High curing speed Good anti-cracking Good solvent resistance 	<ul style="list-style-type: none"> UV. topcoat for thermo polyurethane(TPU) UV.VM. primer for thermo polyurethane(TPU)
DR-U095	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Fast curing speed Stain resistance Good yellowing resistance 	<ul style="list-style-type: none"> Anti-stain coatings UV. plastic coating
DR-U110	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> Good leveling Good hardness Dual curing oligomer Good yellowing resistance 	<ul style="list-style-type: none"> UV. plastic coating UV. VM coating
DR-U123	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> Excellent leveling Excellent yellowing resistance Good hardness 	<ul style="list-style-type: none"> UV spray topcoat for large area plastics UV. white topcoat for wood
DR-U124	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good yellowing resistance Excellent flexibility Excellent impact resistance 	<ul style="list-style-type: none"> UV. primer for wood UV. topcoat for PVC
DR-U129	Aliphatic Urethane Hexaacrylate	<ul style="list-style-type: none"> Good elasticity and flexibility Good abrasion resistance Fast curing speed Good weather performance 	<ul style="list-style-type: none"> Overprint varnishes for paper & board UV. plastic coating UV. inks
DR-U153	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good leveling Good abrasion resistance Excellent hardness Good adhesion to metal substrate 	<ul style="list-style-type: none"> UV.VM. topcoat for plastics (PC、ABS) UV. decorating for metals (copper、aluminum、stainless steel)
DR-U300	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good adhesion Good flexibility Good water and heat resistance 	<ul style="list-style-type: none"> UV adhesive UV plastic coating
DR-U301	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good water resistance Good heat resistance Good yellowing resistance 	<ul style="list-style-type: none"> Adhesives Screen inks Metal coatings
DR-U302	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Excellent adhesion Excellent flexibility Good heat resistance 	<ul style="list-style-type: none"> UV Adhesive for glass to glass/metals

Typical Physical & Chemical Properties								
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
							REACH	TSCA
4	Clear & Clean	1	-	1,500~1,700(60°C)	-	-	-	-
4	Clear & Clean	1	-	12,000~22,000	-	-	-	-
4	Clear & Clean	1	-	15,000~25,000	-	-	-	-
2	Light yellow	3	-	27,000~33,000(60°C)	-	-	-	-
2	Light yellow	3	-	17,000~22,000(60°C)	-	-	-	-
2	Clear & Clean	1	-	300~400	-	-	-	-
6	Clear & Clean	1	-	60,000~80,000	-	-	-	-
-	Clear & Clean	1	-	1,800~3,000	70.4	86A	-	-
2	Clear & Clean	1	-	50,000~70,000	-	-	-	-
8	Clear & Clean	1	-	9,000~12,000	67.7	91A	-	-
6	Clear & Clean	1	-	3,500~5,500	-	-	-	-
6	Clear & Clean	1.5	-	600~1,200(60°C)	-	-	-	-
4	Clear & Clean	1.5	-	1,500~2,200(60°C)	-	-	-	-
6	Clear & Clean	1	-	1,800~2,200(60°C)	-	-	-	-
2	Clear & Clean	1	-	5,000~8,000	-	-	-	-
2	Clear & Clean	1	-	8,000~9,000(60°C)	28.6	71A	-	-
2	Clear & Clean	1	-	30,000~35,000(60°C)	3.5	-	-	-
2	Clear & Clean	1	-	3,000~3,500	-	-	-	-

**URETHANE
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
DR-U307	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good toughness Good adhesion Good yellowing resistance Good abrasion resistance 	<ul style="list-style-type: none"> UV. coating for optical fiber
DR-U308	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Excellent yellowing resistance Good adhesion Good flexibility 	<ul style="list-style-type: none"> UV. Adhesives
DR-U310	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good flexibility High elongation 	<ul style="list-style-type: none"> UV wood and plastic coatings UV screen ink UV adhesion
DR-U311	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Good adhesion of glass to glass Good boiling - water resistance Good thermal shock 	<ul style="list-style-type: none"> UV.adhesive for glass
DR-U312	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Excellent flexibility Excellent yellowing resistance Good curing speed 	<ul style="list-style-type: none"> UV. PVC coatings
DR-U591	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> High hardness Good toughness Excellent vibration resistance 	<ul style="list-style-type: none"> UV. Top coating for 3C

**EPOXY
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
620-100	2-Hydroxy-3-Phenoxypropyl Acrylate	<ul style="list-style-type: none"> Improved flexibility Good adhesion 	<ul style="list-style-type: none"> Coatings UV. inks UV. adhesives
6202	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good flexibility Good pigment wetting Good water balance 	<ul style="list-style-type: none"> UV. offset ink
6205	Epoxy Acrylate	<ul style="list-style-type: none"> Good flexibility Good adhesion on wood Excellent sanding 	<ul style="list-style-type: none"> UV wood sanding primer UV clear coatings for paper, wood, flexible and rigid plastics
6209	Epoxy Methacrylate	<ul style="list-style-type: none"> Low viscosity Good adhesion 	<ul style="list-style-type: none"> UV. adhesives
621-100	Standard Bisphenol A Epoxy Acrylate	<ul style="list-style-type: none"> Light color Very high gloss Good UV/EB cure reactivity Good hardness and chemical resistance 	<ul style="list-style-type: none"> Overprint varnishes for paper and rigid plastics Wood varnishes Inks and metal decorating vehicles
621A-80	Standard Bisphenol A Epoxy Acrylate Diluted in 20% TPGDA	<ul style="list-style-type: none"> Light color Very high gloss Good UV/EB cure reactivity Good hardness and chemical resistance 	<ul style="list-style-type: none"> Overprint varnishes for paper and rigid plastics Wood varnishes Inks and metal decorating vehicles
6210G	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Low viscosity Good UV/EB cure reactivity High gloss Good surface hardness Good solvent resistance 	<ul style="list-style-type: none"> Overprinting varnishes Wood varnishes Coatings for paper and plastics Lithographic and screen ink vehicles Metal decorating vehicles
6215-100	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Light color Good UV/EB cure reactivity Low film shrinkage Good flexibility and toughness 	<ul style="list-style-type: none"> UV. overprinting varnishes UV. coating for paper & plastics UV. wood varnishes UV. ink
6219-100	Epoxy Methacrylate	<ul style="list-style-type: none"> Light color Good UV/EB cure reactivity Very high gloss Good toughness and abrasion resistance 	<ul style="list-style-type: none"> Overprinting varnishes Coating for paper & plastics Wood varnishes Lithographic & screen ink vehicles Metal decorating vehicles
622-100	Fatty Acid Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good wetting, flow and leveling effect Improved flexibility 	<ul style="list-style-type: none"> Coating for paper and wood Ink Metal decorating vehicles
622A-80	Fatty Acid Modified Epoxy Acrylate Diluted in 20% TPGDA	<ul style="list-style-type: none"> Low odor Good wetting, flow and leveling effect Improved flexibility 	<ul style="list-style-type: none"> Coating for paper and wood Ink Metal decorating vehicles

Typical Physical & Chemical Properties									
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status		
							REACH	TSCA	
2	Clear & Clean	1	-	39,000~62,000	-	-	-	-	
2	Clear & Clean	1	-	10,000~15,000(60°C)	-	-	-	-	
2	Clear & Clean	1	-	8,000~9,500(60°C)	-	-	-	-	
2	Clear & Clean	1	-	12,000~22,000(60°C)	-	-	-	-	
2	Slightly turbid	-	30.2	2,000~2,600(60°C)	-	-	-	-	
10	Clear & Clean	1	-	25,000~50,000	-	-	-	-	

Typical Physical & Chemical Properties									
Functionality	Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
								REACH	TSCA
1	Clear & Clean	1	1	21.7	150~200	14	71A	-	v
1.5	Clear & Clean	1	1	-	35,000~60,000	-	-	-	-
2	Yellowish, Viscous liquid	5	5	-	40,000~60,000	-	84.3A	-	-
1	Clear & Clean	200 (Apha)	1	-	30~70	-	-	-	-
2	Clear & Clean	1	1	2.8	4,000~7,000(60°C)	90.1	-	v	v
2	Clear & Clean	1	1	2	28,500~40,000	90.4	94A	v	v
2	Clear & Clean	1	1	4.8	30,000~35,000	80.2	91A	-	v
2	Yellowish, Viscous liquid	2	5	22.3	5,000~6,200(60°C)	29	90A	v	NOC
2	Clear & Clean	1	3	0.9	3,000~6,000(60°C)	82.9	-	v	v
1.9	Clear & Clean	1	1	3.9	3,000~5,500(60°C)	53	8D	v	v
1.9	Clear & Clean	1	1	9	18,000~25,000	48	93A	v	v

**EPOXY
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
623-100	Modified Bisphenol A Epoxy Acrylate	<ul style="list-style-type: none"> Provide improved flexibility and toughness without sacrificing cure speed Good abrasion and chemical resistance 	<ul style="list-style-type: none"> Overprint varnishes, clear coatings for paper, wood and metal Lithographic inks
623A-80	Modified Bisphenol A Epoxy Acrylate Diluted in 20% TPGDA	<ul style="list-style-type: none"> Provide improved flexibility and toughness without sacrificing cure speed Good abrasion and chemical resistance 	<ul style="list-style-type: none"> Overprint varnishes, clear coatings for paper, wood and metal Lithographic inks
6231A-80	Modified Bisphenol A Epoxy Acrylate Diluted in 20% TPGDA	<ul style="list-style-type: none"> Provide improved flexibility and toughness without sacrificing cure speed Good abrasion and chemical resistance 	<ul style="list-style-type: none"> Overprint varnishes, clear coatings for paper, wood and metal Lithographic inks
6233	Modified Epoxy Acrylate	<ul style="list-style-type: none"> High gloss Excellent adhesion to aluminum Good toughness 	<ul style="list-style-type: none"> UV. vacuum metallization primer for plastics
6233-1	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good leveling Good adhesion Good toughness 	<ul style="list-style-type: none"> UV. vacuum metallization primer coatings for PPA and Phenolic substrates
6234	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Fast curing speed Good pigment wetting High gloss 	<ul style="list-style-type: none"> UV. coating for paper & plastics UV. wood varnishes UV. offset ink
6235	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good flexibility Toughness Excellent adhesion on wood Good chemical resistance 	<ul style="list-style-type: none"> Wood sealer and topcoat Plastic coatings
6236A	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good compatibility Good adhesion on wood Excellent sanding 	<ul style="list-style-type: none"> UV wood sanding primer
624-100	Standard Bisphenol A Epoxy Acrylate	<ul style="list-style-type: none"> Light color Very high gloss Good UV/EB cure reactivity Good hardness and chemical resistance 	<ul style="list-style-type: none"> Overprint varnishes for paper and rigid plastics Wood varnishes Inks and metal decorating vehicles
624A-75	Standard Bisphenol A Epoxy Acrylate Diluted in 25% TPGDA	<ul style="list-style-type: none"> Light color Good UV/EB cure reactivity Good hardness and abrasion resistance 	<ul style="list-style-type: none"> Overprint varnishes for paper and plastics Wood varnishes (sealer and topcoat) Other coatings and inks
625C-45	Novolac Epoxy Acrylate Diluted in 55% TMPTA	<ul style="list-style-type: none"> Extremely high surface hardness Good thermal resistance properties Excellent chemical resistance 	<ul style="list-style-type: none"> Electronics : solder masks Screen inks
6261	Epoxidised Soya Bean Oil Acrylate	<ul style="list-style-type: none"> Fast curing speed Good flexibility Good pigment wetting 	<ul style="list-style-type: none"> Overprinting varnishes Coatings for paper & plastics Wood varnishes Lithographic & screen ink vehicles metal decorating vehicles
DR-G908	Modified Epoxy Hexaacrylate	<ul style="list-style-type: none"> Fast curing speed Good pigment wetting Good deep curing performance 	<ul style="list-style-type: none"> Overprinting varnishes Coatings for paper & plastics Wood varnishes Lithographic & screen ink vehicles Metal decorating vehicles
DR-G911	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good heat resistance High curing speed 	<ul style="list-style-type: none"> UV. car lamp
DR-G923	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Fast curing speed Good pigment wetting Good water pick-up Good flexibility 	<ul style="list-style-type: none"> UV. offset ink UV. plastic coating UV. color paste
DR-G937	Epoxy Acrylate	<ul style="list-style-type: none"> Good pigment wetting Low tack value Good water balance 	<ul style="list-style-type: none"> UV. offset inks
DR-G941	Modified Epoxy Acrylate	<ul style="list-style-type: none"> High curing speed Good stain resistance (Iodine) 	<ul style="list-style-type: none"> UV. topcoat for PVC UV. coating for Wood
DR-G942	Modified Epoxy Acrylate	<ul style="list-style-type: none"> High curing speed Good cigarette resistance Good stain resistance (Iodine) 	<ul style="list-style-type: none"> UV. topcoat for PVC UV. coating for wood
DR-G991	Modified Epoxy Acrylate	<ul style="list-style-type: none"> Good heat resistance Good adhesion to BMC/PBT 	<ul style="list-style-type: none"> UV BMC/PBT VM basecoat

Typical Physical & Chemical Properties									
Functionality	Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status REACH	Regulatory Status TSCA
2	Clear & Clean	2	3	12.7	4,000~5,500(60°C)	33.5	92A	v	v
2	Clear & Clean	2	3	6.2	25,000~33,000	51.7	91A	v	v
2	Clear & Clean	2	3	6.9	23,000~31,000	50.1	92A	-	-
2	Clear & Clean	1	-	-	10,000~20,000	74.1	95A	-	-
2	Clear & Clean	1	-	-	1,200~2,200	115.4	70A	-	-
2	Clear & Clean	1	1	-	3,500~5,000	80.4	94A	v	v
2	Clear & Clean	2	3	-	900~1,400(60°C)	-	-	-	-
2	Clear & Clean	3	1	-	1,500~2,500	-	-	-	-
2	Clear & Clean	1	1	3.3	3,000~7,000(60°C)	82.9	10D	v	v
2	Clear & Clean	1	1	4.1	12,000~18,000	90.1	96A	v	v
3~4	Clear & Clean	1	3	2.3	5,000~9,000	87.8	20D	-	v
3	Clear & Clean	10	12	10.1	25,000~38,000	14.3	89A	v	v
6	Clear & Clean	2	3	2	6,000~7,000(60°C)	85.8	96A	-	-
3~6	Clear & Clean	7	20	-	8,000~12,000	-	-	-	-
2	Clear & Clean	5	3	-	3,500~4,500(60°C)	12.6	90A	-	-
2	Yellowish, Viscous liquid	3	3	-	6,500~8,500(60°C)	-	-	-	-
2	Clear & Clean	1	1	-	20,000~35,000	-	-	-	-
2.5	Clear & Clean	1	1	-	25,00~35,000	-	-	-	-
4	Clear & Clean	6	10	-	150~320	-	-	-	-

**POLYESTER
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6311-100	Fatty Acid Modified Hexa-functional Polyester Hexaacrylate	<ul style="list-style-type: none"> • Fast curing speed • Good pigment wetting • Good lithographic behavior • Good abrasion resistance • Good solvent resistance 	<ul style="list-style-type: none"> • Fast curing lithographic inks and clear varnishes • UV. offset and flexo inks
6312-100	Fatty Acid Modified Hexa-functional Polyester Hexaacrylate	<ul style="list-style-type: none"> • Fast curing speed • Good pigment wetting • Good lithographic behavior • Good abrasion resistance • Good solvent resistance 	<ul style="list-style-type: none"> • UV. offset inks
6312-100E	Fatty Acid Modified Hexa-functional Polyester Hexaacrylate	<ul style="list-style-type: none"> • Fast curing speed • Good pigment wetting • Good lithographic behavior • Good abrasion resistance • Good solvent resistance 	<ul style="list-style-type: none"> • UV. offset inks
6313-100	Fatty Acid Modified Tetra-functional Polyester Acrylate	<ul style="list-style-type: none"> • Low irritancy • Good pigment wetting • Outstanding lithographic behavior 	<ul style="list-style-type: none"> • UV. offset inks
6314C-60	Chlorinated Polyester Resin Diluted in 40% TMPTA	<ul style="list-style-type: none"> • Good adhesion • Good pigment wetting • Fast curing speed 	<ul style="list-style-type: none"> • Inks and coatings for metal, plastic and paper
6314C-60L	Chlorinated Polyester Resin Diluted in 40% TMPTA	<ul style="list-style-type: none"> • Good adhesion • Good pigment wetting • Fast curing speed 	<ul style="list-style-type: none"> • Inks and coatings for metal, plastic and paper
6314G-60	Chlorinated Polyester Resin Diluted in 40% GPTA	<ul style="list-style-type: none"> • Good adhesion • Good pigment wetting • Fast curing speed 	<ul style="list-style-type: none"> • Inks and coatings for metal, plastic and paper
6315	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Lower viscosity • High gloss • Good UV/EB cure reactivity • Good scratch resistant and toughness • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes • Coating for plastics • Lithographic and screen ink vehicles
6316	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Good hardness • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Coating for plastics
6319	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Good UV/EB cure reactivity • Good scratch resistant and toughness • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes • Coating for plastics
6319-1	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Good UV/EB cure reactivity • Good scratch resistant and toughness • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes • Coating for plastics
6320	Polyester Tetraacrylate	<ul style="list-style-type: none"> • Lower viscosity • High gloss • Good UV/EB cure reactivity • Good scratch resistant and toughness • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes • Coating for plastics • Lithographic and screen ink vehicles
6321-100	Polyester Tetraacrylate	<ul style="list-style-type: none"> • High gloss • Good UV/EB cure reactivity • Good scratch resistance • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes • Coating for plastics • Lithographic and screen ink vehicles
6327-100	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Lower viscosity • Good UV/EB cure reactivity • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes • Lithographic and screen ink vehicles
6328	Amine-Modified Polyester acrylate	<ul style="list-style-type: none"> • Low viscosity • Low odor • Fast curing speed 	<ul style="list-style-type: none"> • UV. inks • UV. wood coating
6333-100	Polyester Acrylate	<ul style="list-style-type: none"> • Low odor • Low viscosity • Good flexibility 	<ul style="list-style-type: none"> • UV. varnish for plastic (PMMA, PC and ABS) • UV. flexo Inks • Wood coating • Ink-jet
6340	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good water pick up • Good leveling 	<ul style="list-style-type: none"> • Inks and coatings for metal, plastic and paper

Typical Physical & Chemical Properties										
Functionality	Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	REACH	TSCA
6	High viscous	dark	12	3	4,000~8,000	42.3	95A	v	v	
6	High viscous	dark	20	3.2	20,000 ~ 50,000	59.8	86A	v	v	
6	High viscous	dark	20	3.5	40,000~60,000	61.2	86A	v	v	
4	High viscous	dark	20	1.8	100,000~150,000	83.1	91A	v	v	
-	High viscous	1	25	1.6	100,000~150,000	50.3	94A	v	v	
-	High viscous	1	25	2.2	60,000~90,000	48.6	93A	v	v	
-	High viscous	1	25	1.9	100,000~150,000	53.1	90A	v	v	
-	Clear & Clean	2	-	7.3	15,000~25,000	44.8	95A	v	NOC	
-	Clear & Clean	2	-	31.1	12,000~25,000	24.3	92A	v	v	
-	Clear & Clean	2	-	29.4	15,000~25,000	16.6	93A	v	v	
-	Clear & Clean	2	-	-	8,000~14,000	-	-	v	v	
4	Clear & Clean	2	20	6.2	300~500	43.3	95A	-	v	
4	Clear & Clean	1	5	-	35,000~50,000	82.8	93A	v	v	
2	Clear & Clean	2	8	8.7	800~1,200	15.9	87A	v	v	
-	Clear & Clean	2	-	-	200~300	-	-	-	-	
2	Clear & Clean	2	0.5	26.1	100~300	23.1	94A	-	v	
2	Clear & Clean	1	10	-	4,500~5,000(60°C)	30.7	82A	-	v	

**POLYESTER
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6340N	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good toughness • Good pigment wetting 	<ul style="list-style-type: none"> • Inks and coatings for metal, plastic and paper
6342	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Low viscosity • Good flexibility • Good adhesion • Good solvent resistance 	<ul style="list-style-type: none"> • Wood varnishes • Coating for plastics • Lithographic and screen ink vehicles
6343	Modified Polyester Acrylate	<ul style="list-style-type: none"> • Good hardness • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes
6349	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Fast curing speed • Good ink performance 	<ul style="list-style-type: none"> • UV, offset inks • V.M. base coat for PCTA, PETG
6351	Polyester Acrylate	<ul style="list-style-type: none"> • Low viscosity • Good leveling • Good UV/EB cure reactivity 	<ul style="list-style-type: none"> • Wood varnishes • Coating for plastics • UV. inks
6353	Polyester Acrylate	<ul style="list-style-type: none"> • High viscosity and low tack • Good pigment wetting • Good water pick up 	<ul style="list-style-type: none"> • UV. offset inks
6353-1	Polyester Acrylate	<ul style="list-style-type: none"> • High viscosity and low tack • Good pigment wetting • Good water pick up • Toluene free 	<ul style="list-style-type: none"> • UV. offset inks
6355	Polyester Acrylate	<ul style="list-style-type: none"> • Good flexibility • Good adhesion • Good solvent resistance 	<ul style="list-style-type: none"> • Overprint varnish for paper & board • Wood varnishes
6358H	Polyester Acrylate	<ul style="list-style-type: none"> • High viscosity and low tack • Good pigment wetting • Good water pick up 	<ul style="list-style-type: none"> • UV. offset inks
6360	Polyester Acrylate	<ul style="list-style-type: none"> • Good self-matting • Good adhesion • Good flexibility 	<ul style="list-style-type: none"> • UV. matting coatings for paper • UV. matting coatings for wood
6361-100	Hyperbranched Polyester Acrylate	<ul style="list-style-type: none"> • Low viscosity • Low shrinkage • Good toughness 	<ul style="list-style-type: none"> • Plastic coating, such as PCTA, ABS and PC • Metal coating • Flexographic and inkjet inks.
6362-100	Hyperbranched Polyester Acrylate	<ul style="list-style-type: none"> • Low viscosity • Low shrinkage • Fast curing speed • Better hardness then 6361-100 	<ul style="list-style-type: none"> • Plastic coating, such as PCTA, ABS and PC • Metal coating • Flexographic and inkjet inks.
6363	Hyperbranched Polyester Acrylate	<ul style="list-style-type: none"> • Good toughness • Good leveling • Good impact resistance • Good abrasion resistance • Good adhesion to metal and aluminum 	<ul style="list-style-type: none"> • Coats of UV. vacuum metallization • UV. metal coating
6364-1	Polyester Acrylate	<ul style="list-style-type: none"> • Low viscosity • Good curing speed • High hardness • Excellent flexibility 	<ul style="list-style-type: none"> • UV. solvent free coating • UV. car refinish coating • UV. plastic topcoat • UV. metal coating
6382	Polyester Acrylate	<ul style="list-style-type: none"> • Good heat resistance • Fast curing speed • Good toughness 	<ul style="list-style-type: none"> • UV. VM basecoat for BMC/PBT
6385	Polyester Acrylate	<ul style="list-style-type: none"> • Good heat resistance • Good adhesion to BMC and PBT 	<ul style="list-style-type: none"> • UV. VM basecoat for BMC/PBT
6387	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • High hardness 	<ul style="list-style-type: none"> • UV plastic coating • UV wood coating
6390	Polyester Acrylate	<ul style="list-style-type: none"> • Good heat resistance • Good adhesion to BMC/PBT 	<ul style="list-style-type: none"> • UV. VM basecoat for BMC/PBT

Typical Physical & Chemical Properties										
Functionality	Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	REACH	TSCA
3	Clear & Clean	3	10	-	6,500~7,500(60°C)	-	-	-	-	-
-	Clear & Clean	2	-	7	2,000~5,000	12	94A	V	V	
-	Clear & Clean	2	-	32	15,000~30,000	25	-	V	V	
3	Clear & Clean	6	10	-	2,500~3,800(60°C)	-	-	-	-	-
4	Clear & Clean	1	2	-	800~1,200	17.5	6D	-	-	-
4	Light yellowish	2	5	-	1,500~1,700(60°C)	84.3	5D	V	V	
3	Light yellowish	2	1	-	1,900~2,100(60°C)	73.6	95A	V	V	
2	Light yellowish	2	-	-	40,000~55,000	26	93A	V	NOC	
3	Light yellowish	5	8	-	6,000~10,000(60°C)	-	-	-	-	-
2	Slightly haze	-	-	-	5,000~7,500	4.1	85A	V	V	
8	Clear & Clean	2	10	-	150~250	51.6	39A	V	-	
12~15	Clear & Clean	2	10	-	400~800	70	83A	V	-	
15~18	Clear & Clean	2	20	-	3,000~6,000	70	-	-	-	-
5	Clear & Clean	1	6~13	-	400~800	93.08	-	-	-	-
3	Clear & Clean	1	-	-	250~300	-	-	-	-	-
3	Clear & Clean	1	-	-	2,500~4,500	-	-	-	-	-
2	Clear & Clean	3	-	-	10,000~30,000	-	-	-	-	-
3~4	Clear & Clean	6	<10	-	120~280	-	-	-	-	-

**POLYESTER
ACRYLATE
OLIGOMERS**

Etercure	Chemical Description	Characteristics	Applications
6390F	Fatty Acid modified Polyester Acrylate	<ul style="list-style-type: none"> • Good heat resistance • Good adhesion to BMC/PBT/PA/metal substrates • Good Flexibility and Impact strength 	<ul style="list-style-type: none"> • UV. VM basecoat for BMC/PBT/PA & metal • UV. topcoat for metal substrates
DR-E503-1	Polyester Acrylate	<ul style="list-style-type: none"> • Good water pick up • Good leveling • Toluene free 	<ul style="list-style-type: none"> • UV. offset inks
DR-E504A	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Excellent water resistance • High hardness 	<ul style="list-style-type: none"> • UV screen ink • UV screen coating
DR-E508	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good toughness 	<ul style="list-style-type: none"> • UV. VM topcoat • UV metal topcoat • UV ink for glass
DR-E509	Polyester Acrylate	<ul style="list-style-type: none"> • Good flexibility • Good adhesion to plastic substrate • Good adhesion to polished tin-plate 	<ul style="list-style-type: none"> • UV offset ink • UV screen ink
DR-E510	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good pigment wetting • Good solvent resistance 	<ul style="list-style-type: none"> • UV offset ink • UV screen ink
DR-E514	Polyester Acrylate	<ul style="list-style-type: none"> • Good flexibility • Good pigment wetting • Good adhesion 	<ul style="list-style-type: none"> • UV Tin-plate offset ink
DR-E515	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good toughness • Good leveling 	<ul style="list-style-type: none"> • UV. VM topcoat • UV. metal topcoat • UV. ink for glass
DR-E522	Hyperbranched Polyester Acrylate	<ul style="list-style-type: none"> • Good leveling • Good flexibility • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • Coating for plastics • Coats of UV. vacuum metallization
DR-E527	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion with pigment • Good hardness • Good water resistance 	<ul style="list-style-type: none"> • UV. coating for plastic • UV. hardcoat for plastic • UV. coating for Wood
DR-E530	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion with metal • Good water resistance 	<ul style="list-style-type: none"> • UV. basecoat for metal
DR-E532	Polyester Acrylate	<ul style="list-style-type: none"> • Good gloss • Good levelling • Excellent adhesion 	<ul style="list-style-type: none"> • UV ink on glass • Coats of UV. vacuum metallization • UV. metal coating
DR-E580	Polyester Acrylate	<ul style="list-style-type: none"> • High gloss • Good weather resistance • Good water pick up • Good curing speed 	<ul style="list-style-type: none"> • UV. offset inks
DR-E582	Polyester Acrylate	<ul style="list-style-type: none"> • Good gloss • Good flexibility • Good adhesion • Good water pick up 	<ul style="list-style-type: none"> • UV. offset inks
DR-E589	Polyester Acrylate	<ul style="list-style-type: none"> • Good toughness • Good pigment wetting • Good curing speed 	<ul style="list-style-type: none"> • UV. offset inks
DR-E615	Polyester Acrylate	<ul style="list-style-type: none"> • Good adhesion • Good leveling • Good boiling water resistance 	<ul style="list-style-type: none"> • UV. VM primer on glass
DR-E620	Polyester Tetraacrylate	<ul style="list-style-type: none"> • Excellent adhesion • Excellent heat resistance 	<ul style="list-style-type: none"> • UV. primer for BMC/PBT • UV. metal primer

Typical Physical & Chemical Properties									
Functionality	Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
								REACH	TSCA
3~4	Clear & Clean	6	-	-	120~280	-	-	-	-
3	Light yellowish	1	2	-	1,200~1,700(60°C)	48.1	94A	V	-
2	Clear & clean	1.5	-	-	6,000~9,000	-	-	-	-
2	Clear & clean	1	-	-	3,000~4,000	-	-	-	-
3	light yellow liquid	2	3~10	-	6,200~7,200(60°C)	19	90A	-	-
3	light haze	8	-	-	2,500~3,500	-	-	-	-
2	Clear & Clean	1	10	-	4,000~5,000(60°C)	-	-	-	V
2	Clear & Clean	1	-	-	4,000~5,000	-	-	-	-
15~8	Clear & Clean	1	10	-	1,500~3,500	-	-	-	-
8~10	Clear & Clean	2	-	-	1,800~2,200	-	-	-	-
-	Clear & Clean	1	-	-	30~70	-	-	-	-
2	Light yellowish	2	<40	-	3,500~4,500(60°C)	-	-	-	-
2~3	Light yellowish	2	10	-	3,500 ~ 6,500	-	-	-	-
3	Clear & Clean	2	10	-	25,000 ~ 45,000	-	-	-	-
3	Clear & Clean	2	10	-	35,000 ~ 45,000	-	-	-	-
2	Clear & Clean	4	-	-	600~1,000	-	-	-	-
4	Clear & Clean	6	-	-	180~400	-	-	-	-

**REACTIVE
AMINE
SYNERGISTS**

Etercure	Chemical Description	Characteristics	Applications
641	Tertiary Amine Acrylate	<ul style="list-style-type: none"> Good diluent efficiency Less migration after cured Increase UV cure speed 	<ul style="list-style-type: none"> Adhesion promoter for PVC plastics, UV clear coating Increase gloss retention
6410	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Less migration after cured Increase UV cure speed Low odor Light color 	<ul style="list-style-type: none"> Wood coatings Overprint varnishes
6411	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Fast cure speed Low odor Light color Less surface migration of amine 	<ul style="list-style-type: none"> Wood coatings Overprint varnishes
6412	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Fast cure speed Low odor Light color 	<ul style="list-style-type: none"> Overprinting varnishes Coating for paper & plastics Lithographic & screen inks Wood coatings
6413	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Fast cure speed, especially at the surface Low odor Light color Good diluent efficiency Low viscosity 	<ul style="list-style-type: none"> Overprinting varnishes Coating for paper & plastics Lithographic & screen inks Wood coatings
6417	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Fast curing speed Low odor Less surface migration of amine 	<ul style="list-style-type: none"> Overprinting varnishes Coating for paper & plastics Lithographic & screen inks Wood coatings
6420	Reactive Amine Synergist	<ul style="list-style-type: none"> Fast cure speed, especially at the surface Low level of odor Light color Less surface migration of amine Good stability 	<ul style="list-style-type: none"> Overprint varnishes Screen and flexo inks Wood coatings Clear varnishes on paper and plastics Pigmented coatings
6422	Reactive Amine Synergist	<ul style="list-style-type: none"> Low odor Light color Good diluent efficiency Less migration after cured Fast cure speed, especially at the surface 	<ul style="list-style-type: none"> Overprint varnishes Screen and flexo inks Wood coatings Clear varnishes on paper and plastics Pigmented coatings
6423	Amine Modified Bisphenol A Type Epoxy Acrylate Resin	<ul style="list-style-type: none"> Fast curing speed Solvent resistance Very high gloss 	<ul style="list-style-type: none"> Overprinting varnishes Coating for paper and plastics Lithographic and screen ink Metal decorating vehicles Wood coating
6425	Amine Modified Bisphenol A Type Epoxy Acrylate Resin	<ul style="list-style-type: none"> Fast curing speed Solvent resistance Very high gloss 	<ul style="list-style-type: none"> Overprinting varnishes Coating for paper and plastics Lithographic and screen ink Metal decorating vehicles Wood coating
6430	Reactive Amine Synergist	<ul style="list-style-type: none"> Low odor Light color Good diluent efficiency Less migration after cured Fast cure speed, especially at the surface 	<ul style="list-style-type: none"> Overprint varnishes Screen and flexo inks Wood coatings Clear varnishes on paper and plastics Pigmented coatings
645	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Low odor Less migration after cured Fast cure speed 	<ul style="list-style-type: none"> In place of non-reactive amine synergists Overprinting varnishes
647	Special Tertiary Amine Acrylate	<ul style="list-style-type: none"> Fast cure speed Low odor Light color Less surface migration of amine 	<ul style="list-style-type: none"> In place of non-reactive amine synergists Overprinting varnishes

Typical Physical & Chemical Properties							
Functionality	Appearance	Color (Gardner)	Tensile Elongation%	Viscosity (cps at 25°C)	Tg°C	Regulatory Status	
						REACH	TSCA
1	Red yellowish	4	38	25~40	-49.6	-	-
2	Clear & Clean	1	36	1,000~3,000	-11.1	v	v
2	Clear & Clean	1	39	200~300	-16	-	-
4	Clear & Clean	2	-	3,000~5,000	10	v	-
2.5	Clear & Clean	2	-	80~120	46.4	-	-
1~2	Clear & Clean	2	-	800~1,200	-43.1	v	v
-	Clear & Clean	2	30.2	15~25	-	v	v
-	Clear & Clean	1	31	70~100	-	-	-
2	Clear & Clean	5	-	3,000~4,000(60°C)	36.7	-	-
2	Clear & Clean	4	-	2,000~4,000(60°C)	-	-	-
1	Clear & Clean	1	32.3	10~20	-	v	v
1~2	Red-yellowish	4	35.4	100~130	-17.2	-	-
1~2	Red-yellowish	3	35.7	80~100	-32.1	-	-

**FULL
ACRYLICS**

Etercure	Chemical Description	Characteristics	Applications
6530B-40	A Full Acrylic Resin Diluted in 60% HDDA	<ul style="list-style-type: none"> Fast curing speed High hardness Good weather resistance Good adhesion to difficult substrates 	<ul style="list-style-type: none"> UV. coatings on paper, plastics, metal, wood UV. inks
6533B-40	A Full Acrylic Resin Diluted in 60% HDDA	<ul style="list-style-type: none"> Good hardness and toughness Good soluble to monomers Good weather resistance Improve adhesion to different substrate 	<ul style="list-style-type: none"> UV. coatings on paper, plastics, metal, wood UV. inks
6536-1	A Full Acrylic Resin diluted in 50% HDDA	<ul style="list-style-type: none"> Good flexibility Good Anti-stick back Good adhesion to OPP 	<ul style="list-style-type: none"> UV. screen printing ink
6584N	A Full Acrylic Resin Diluted in 30% TMPTA	<ul style="list-style-type: none"> Good flexibility Good pigment wetting Good adhesion to PP 	<ul style="list-style-type: none"> UV. screen printing ink UV. offset printing ink
6584N-1	A Full Acrylic Resin diluted in 30% HDDA	<ul style="list-style-type: none"> Good flexibility Good yellowing resistance Good adhesion 	<ul style="list-style-type: none"> UV screen inks on PP and metal UV screen varnish on PVC
DR-A801	A Full Acrylic Resin Diluted in 46% HDDA/TPGDA	<ul style="list-style-type: none"> Fast curing speed Good flexibility Improve adhesion to different substrate 	<ul style="list-style-type: none"> UV. coatings on paper, plastics, metal, wood UV. inks
DR-A813	A Full Acrylic Resin	<ul style="list-style-type: none"> Good flexibility Good yellowing resistance Good adhesion 	<ul style="list-style-type: none"> UV.white topcoat for Wood UV. plastic coating
DR-A830	A Full Acrylic Resin	<ul style="list-style-type: none"> Good adhesion on untreated PP 	<ul style="list-style-type: none"> Adhesion promoter on untreated PP
DR-A845	A Full Acrylic Resin Diluted in 46% HDDA/TPGDA	<ul style="list-style-type: none"> Good flexibility Good pigment wetting Good levelling 	<ul style="list-style-type: none"> UV. tin-plate offset ink UV. screen ink

**SPECIFIC
FUNCTIONAL
ACRYLATES**

Etercure	Chemical Description	Characteristics	Applications
601A-35	Organic-inorganic Hybrid Material Dispersion in TPGDA	<ul style="list-style-type: none"> Improved scratch-abrasion and chemical-resistance High durability to weathering and environmental exposure Higher thermal stability and flame retardancy Improved adhesion on various substrates Better dimensional stability and low shrinkage Antistatic and antiblocking properties Anticorrosion effect 	<ul style="list-style-type: none"> Paints, varnishes and adhesives Inks and overprint varnishes Polymer substrates Optical coatings
601B-35	Organic-inorganic Hybrid Material Dispersion in HDDA	<ul style="list-style-type: none"> Improved scratch-abrasion and chemical-resistance High durability to weathering and environmental exposure Higher thermal stability and flame retardancy Improved adhesion on various substrates Better dimensional stability and low shrinkage Antistatic and antiblocking properties Anticorrosion effect 	<ul style="list-style-type: none"> Paints, varnishes and adhesives Inks and overprint varnishes Polymer substrates Optical coatings
601C-35	Organic-inorganic Hybrid Material Dispersion in TMPTA	<ul style="list-style-type: none"> Improved scratch-abrasion and chemical-resistance High durability to weathering and environmental exposure Higher thermal stability and flame retardancy Improved adhesion on various substrates Better dimensional stability and low shrinkage Antistatic and antiblocking properties Anticorrosion effect 	<ul style="list-style-type: none"> Paints, varnishes and adhesives Inks and overprint varnishes Polymer substrates Optical coatings
601H-35	Organic-inorganic Hybrid Material Dispersion in TMP3EOTA	<ul style="list-style-type: none"> Improved scratch-abrasion and chemical-resistance High durability to weathering and environmental exposure Higher thermal stability and flame retardancy Improved adhesion on various substrates Better dimensional stability and low shrinkage Antistatic and antiblocking properties Anticorrosion effect 	<ul style="list-style-type: none"> Paints, varnishes and adhesives Inks and overprint varnishes Polymer substrates Optical coatings

Typical Physical & Chemical Properties

Appearance	Color (Gardner)	Viscosity (cps at 25°C)	Tg°C	Shore	Regulatory Status	
					REACH	TSCA
Clear & Clean	1	13,000~16,500	73.6	91A	V	V
Clear & Clean	1	16,000~32,000	86.2	90A	-	V
Slightly turbid	-	20,000~40,000	-	-	-	-
Clear & Clean	3	30,000~36,000(60°C)	-	-	-	-
Clear & Clean	1	6,000~8,000(60°C)	-	-	-	-
Clear & Clean	1.5	13,000~20,000	7.1	91A	V	-
Clear & Clean	1	8,000~9,000(60°C)	-	-	-	-
Clear & Clean	2	15~35	-	-	-	-
Clear & Clean	1.5	7,000~13,000	-	-	-	-

Typical Physical & Chemical Properties

Appearance	Color (Gardner)	Viscosity (cps at 25°C)	Tg°C	Shore	Regulatory Status	
					REACH	TSCA
Clear & Clean	1	170~230	62.7	14D	V	V
Clear & Clean	1	100~150	51.6	18D	V	V
Clear & Clean	1	1,000~2,000	44.2	20D	V	V
Clear & Clean	1	800~1,300	47.9	20D	V	V

**SPECIFIC
FUNCTIONAL
ACRYLATES**

Etercure	Chemical Description	Characteristics	Applications
601Q-35	Organic-inorganic Hybrid Material Dispersion in DPHA	<ul style="list-style-type: none"> Improved scratch-abrasion and chemical-resistance High durability to weathering and environmental exposure Higher thermal stability and flame retardancy Improved adhesion on various substrates Better dimensional stability and low shrinkage Antistatic and antiblocking properties Anticorrosion effect 	<ul style="list-style-type: none"> Paints, varnishes and adhesives Inks and overprint varnishes Polymer substrates Optical coatings
601X-35	Organic-inorganic Hybrid Material Dispersion in 6195-100	<ul style="list-style-type: none"> Improved scratch-abrasion and chemical-resistance High durability to weathering and environmental exposure Higher thermal stability and flame retardancy Improved adhesion on various substrates Better dimensional stability and low shrinkage Antistatic and antiblocking properties Anticorrosion effect 	<ul style="list-style-type: none"> Paints, varnishes and adhesives Inks and overprint varnishes Polymer substrates Optical coatings
604C-35	Organic-inorganic Hybrid Materialdiluted in TMPTA	<ul style="list-style-type: none"> Excellent anti-steel wool Good abrasion resistance Fast curing speed Higher thermal stability 	<ul style="list-style-type: none"> UV topcoat for plastic UV VM topcoat
604Q-35	Organic-inorganic Hybrid Material diluted in DPHA	<ul style="list-style-type: none"> Excellent anti-steel wool Good abrasion resistance Good chemical resistance Low shrinkage 	<ul style="list-style-type: none"> UV topcoat for plastic UV VM topcoat
604X-35	Organic-inorganic Hybrid Material diluted in Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> Excellent hardness Good abrasion resistance Fast curing speed 	<ul style="list-style-type: none"> UV topcoat for plastic UV VM topcoat

**SPECIFIC
FUNCTIONAL
ACRYLATES**

Etercure	Chemical Description	Characteristics	Applications
6063	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good adhesion to aluminum Good flexibility Good leveling 	<ul style="list-style-type: none"> UV. spray topcoat on plastics UV. topcoat on aluminum paste primer
6063-1	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good leveling Good adhesion to metal substrate Good dye compatibility 	<ul style="list-style-type: none"> UV. topcoat on aluminum paste primer
6068	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good abrasion resistance Good solvent resistance Good leveling 	<ul style="list-style-type: none"> UV. spray topcoat on plastics
6068N	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good adhesion Good levelling Think coating 	<ul style="list-style-type: none"> UV. spray topcoat on plastics
6070	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good adhesion to aluminum Good hardness Good dye compatibility 	<ul style="list-style-type: none"> UV. topcoat for vacuum metallization UV. topcoat for aluminum
6071	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good adhesion to aluminum Good hardness and high gloss 	<ul style="list-style-type: none"> UV. topcoat on aluminum panel & aluminum paste primer
6071-2	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> Good leveling Excellent abrasion resistance Good weather resistance Good solvent resistance 	<ul style="list-style-type: none"> UV. spray topcoat on plastics UV. topcoat on aluminum paste primer

Typical Physical & Chemical Properties

Appearance	Color (Gardner)	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
					REACH	TSCA
Clear & Clean	1	12,000~25,000	47.9	29D	V	V
Clear & Clean	1	45,000~65,000	-	-	-	-
Clear & Clean	1	100~250	-	-	-	-
Clear & Clean	1	400~800	-	-	-	-
Clear & Clean	1	1,200~2,500	-	-	-	-

Typical Physical & Chemical Properties

Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status	
						REACH	TSCA
Clear & Clean	1	-	500~650	75.5	85A	-	-
Clear & Clean	1	-	200~400	12	89A	-	-
Clear & Clean	1	-	1,800~2,800	84.4	87A	-	-
Clear & Clean	2	-	6,000~10,000	-	-	-	-
Clear & Clean	1	-	400~560	90	-	-	-
Clear & Clean	1	-	1,700~2,100	122	89A	-	V
Clear & Clean	1	-	800~1,400	71.1	5D	-	-

**SPECIFIC
FUNCTIONAL
ACRYLATES**

Etercure	Chemical Description	Characteristics	Applications
6071-5	Modified Solvent based Acrylate	<ul style="list-style-type: none"> • Good flexibility • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. spray topcoat for plastics • UV. VM topcoat
6072	Modified Solvent based Acrylate	<ul style="list-style-type: none"> • Good hardness • Good abrasion resistance • High curing speed 	<ul style="list-style-type: none"> • UV. Plastic topcoat
6076	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> • Fast curing speed • Good chemical resistance • Good hardness and abrasion resistance 	<ul style="list-style-type: none"> • UV. scratch resistance coatings on plastic • UV. topcoat for PET film • UV. hardcoatings for touch-pad
3500A	Acrylated, Carboxyl Acid Terminated	<ul style="list-style-type: none"> • Acrylate and Carboxylic acid functional group 	<ul style="list-style-type: none"> • Photo-spacer for LCD
6225	Silicone Polyether Acrylate	<ul style="list-style-type: none"> • Light color • Fast curing speed • Good abrasion resistance 	<ul style="list-style-type: none"> • Protective varnish • Coatings for paper, wood, plastic • Inks
648-1	Acrylated, Carboxyl Acid Terminated	<ul style="list-style-type: none"> • Acrylate functionality, carboxylic acid 	<ul style="list-style-type: none"> • UV. curable etching resists • UV. curable plating resists
649	Methacrylated, Carboxyl Acid Terminated	<ul style="list-style-type: none"> • Methacrylate functionality, carboxylic acid 	<ul style="list-style-type: none"> • UV. curable etching resists • UV. curable plating resists
7200C	Aliphatic Urethane Acrylate	<ul style="list-style-type: none"> • Excellent metal adhesion • Good salt mist resistance • Good toughness • Fast curing speed 	<ul style="list-style-type: none"> • UV. topcoat for metals • UV. anti-corrosion coating
7600A	Modified Solvent Based Acrylate	<ul style="list-style-type: none"> • Excellent adhesion to metal substrates • Good flexibility • Good compatibility with dye and pigment • Good water resistance 	<ul style="list-style-type: none"> • VM middle coating for plastics • UV varnish for stainless steel
8000A	Polyfunctional oligomer based on aliphatic urethane acrylate	<ul style="list-style-type: none"> • High transparency • Good toughness • Good resistance to yellowing • Good water resistance 	<ul style="list-style-type: none"> • UV scratch resistance coatings on plastic • UV topcoat for PET film • UV hardcoatings for touch-pad
DR-M451	Melamine Acrylate	<ul style="list-style-type: none"> • Light color • Fast curing speed • Good yellowing resistance • Good hardness 	<ul style="list-style-type: none"> • UV. plastic coating • UV. wood coating
DR-W401A	Waterborne Aliphatic Urethane Acrylate Dispersion	<ul style="list-style-type: none"> • Good adhesion 	<ul style="list-style-type: none"> • UV. waterborne primer on wood
DR-W402	Waterborne Aliphatic Urethane Acrylate Dispersion	<ul style="list-style-type: none"> • Good water resistance • High hardness 	<ul style="list-style-type: none"> • UV. coating on plastic, wood
DR-W403	Waterborne Aliphatic Urethane Acrylate Dispersion	<ul style="list-style-type: none"> • Good water resistance • Good adhesion • Good yellowing resistance 	<ul style="list-style-type: none"> • UV. coating on plastic, wood
DR-W406	Waterborne Aliphatic Urethane Acrylate Dispersion	<ul style="list-style-type: none"> • Good adhesion for wood • Good compatibility with pigment 	<ul style="list-style-type: none"> • UV. waterborne primer for wood
ETERSLIP 90	Silicone modified Urethane acrylate	<ul style="list-style-type: none"> • Good wetting • Good leveling 	<ul style="list-style-type: none"> • UV. plastic coating

Typical Physical & Chemical Properties						
Appearance	Color (Gardner)	Acid Value (mg KOH/g)	Viscosity (cps at 25°C)	Tg °C	Shore	Regulatory Status REACH TSCA
Clear & Clean	1	-	700~1,500	-	-	- -
Clear & Clean	1	-	4,500~5,500	-	-	- -
Clear & Clean	1	-	4,500~5,500	97.7	5D	- -
Clear & Clean	1	30~50	10,000~15,000	-	-	- -
Clear & Clean	3	-	250~650	-	-	- -
Clear & Clean	1	App.210	3,000~10,000	44.7	-	V V
Clear & Clean	1	App.200	app. 4,000	85.1	-	V V
Clear & Clean	2	-	5,000~10,000	-	-	- -
Clear & Clean	2	-	4,500~6,000	-	-	- -
Clear & Clean	1	-	1,800~2,400	75.8	10D	- V
Clear & Clean	0.5	-	2,500~3,500	76.8	-	- -
Milky white	-	-	<200	-	-	- -
Milky white	-	-	<200	-	-	- -
Milky white	-	-	<200	-	-	- -
Milky white	-	-	<200	-	-	- -
Clear & Clean	1	-	22,000~32,000(25°C)	-	-	- -

PHOTOINITIATOR



<u>ALPHA CLEAVAGE</u>	52
<u>HYDROGEN ABSTRACTION</u>	52
<u>MIXTURE</u>	52

ALPHA CLEAVAGE

Eterphoto	Chemical Description
PI 907	2-Methyl-1-(4-(methylthio)phenyl)-2-Morpholino-Propan-1-one
PI TPO	Diphenyl-(2,4,6-trimethylbenzoyl)-Phosphine Oxide
PI BDK	Benzil Dimethyl Ketal
PI 1173	2-Hydroxy-2-Methyl-1-Phenyl-Propan-1-one
PI 184	1-Hydroxy-Cyclohexylphenyl-Ketone
PI 55	Benzonyl Derivative

HYDROGEN ABSTRACTION

Eterphoto	Chemical Description
PI BP	Benzophenone
PI BMS	4-Benzoyl-4'-methylidiphenylsulphide
PI MBB	Methyl-2-Benzoyl Benzoate
PI ITX	Isopropyl Thioxanthone (mixture of 2-and4-isomers)
PI EDB	Ethyl-4-(dimethylamino) Benzoate
PI EHA	2-Ethylhexyl 4-dimethylaminobenzoate

MIXTURE

Eterphoto	Chemical Description
PI 500	Mixture of PI 184 and PI BP

Typical Physical & Chemical Properties

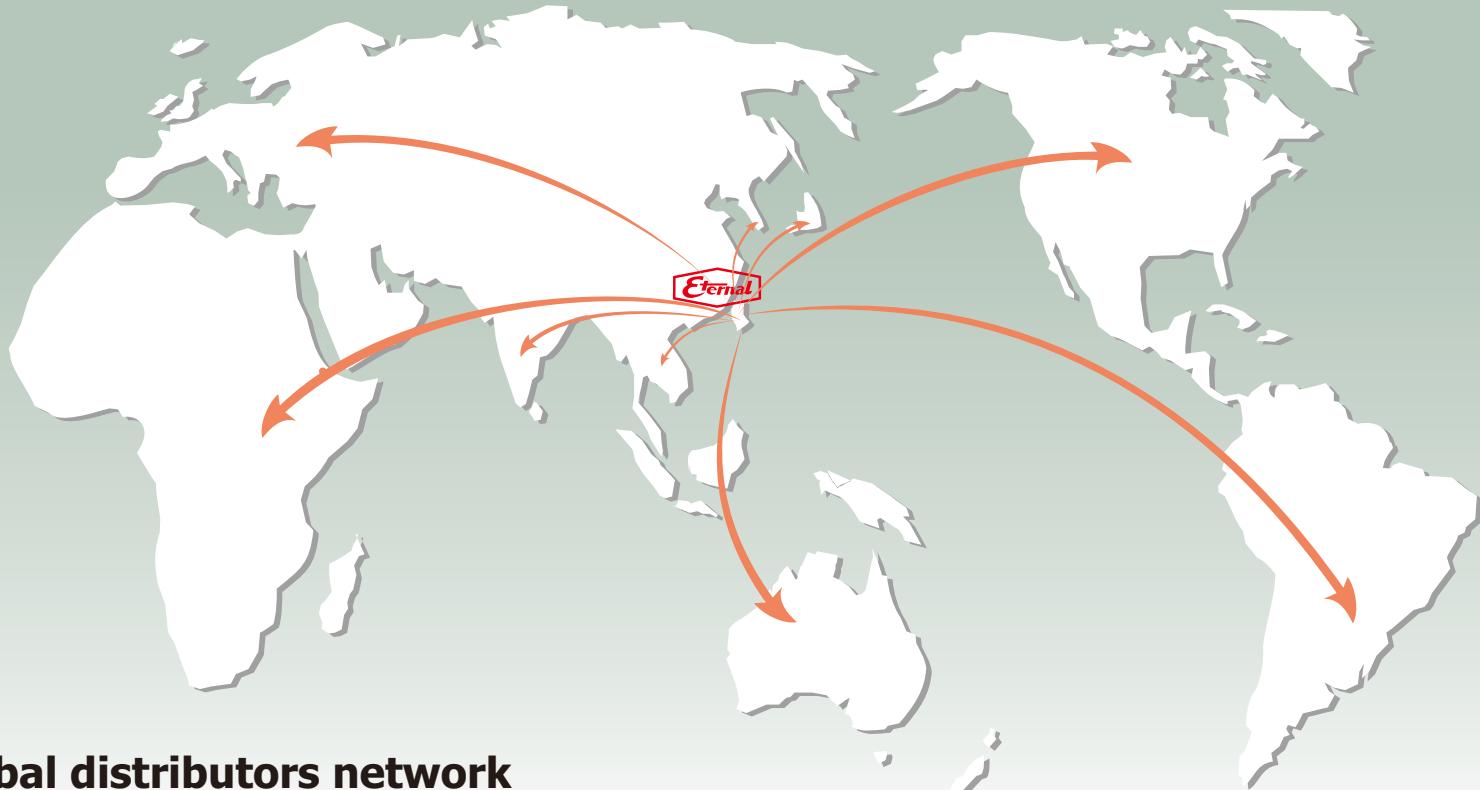
Appearance	Viscosity (cps at 25°C)	Melting Point (°C)	Molecular Weight
White crystalline powder	Solid	72~76	279.4
Light yellow crystal	Solid	87~93	348
White crystalline powder	Solid	64~67	256.3
Colorless or slightly yellow liquid	15~25	-	164.2
White crystalline powder	Solid	46~50	204.3
Slightly yellow liquid	5~15	-	-

Typical Physical & Chemical Properties

Appearance	Viscosity (cps at 25 C)	Melting Point (°C)	Molecular Weight
White crystalline powder	Solid	47~49	182.2
Silver white flake	Solid	75~85	304
White crystalline powder	Solid	48~54	240.3
Yellow or off-yellow powder	Solid	74~76	241
White crystalline powder	Solid	62~64	193
Clear slight yellow liquid	-	325 (Boiling Point)	277.4

Typical Physical & Chemical Properties

Appearance	Viscosity (cps at 25 C)	Melting Point (°C)	Molecular Weight
Colorless or slightly yellow liquid	30~50	<25	193



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