

CYTEC



Lithographic Inks 胶印油墨

RADCURE™

Energy Curable Resins
能量固化树

Asia Pacific 亚太区

Products	Product description	Key features
Oligomers / Diluting acrylates		
DPHA	Dipentaerythritol hexaacrylate	Very high reactivity. High hardness and high scratch resistance.
EBECRYL™ 40 *	Polyether tetraacrylate	Low shrinkage and high reactivity.
EBECRYL 140	Di(trimethylol propane) tetraacrylate	High reactivity and good hardness. Xi free.
EBECRYL 150	Diacrylated bisphenol A derivative	High reactivity and good scratch resistance.
EBECRYL 160	Ethoxylated trimethylol propane triacrylate	More flexible than TMPTA. Good hardness, high gloss and fast cure speed.
EBECRYL 220	Aromatic hexafunctional urethane acrylate	Fast cure, high hardness and solvent resistance.
EBECRYL 436	Chlorinated polyester resin	Good adhesion to metals and plastics.
EBECRYL 438	Chlorinated polyester resin	Good adhesion to metals and plastics.
EBECRYL 446	Chlorinated polyester resin	Good adhesion to metals and plastics and improved lithographic behavior.
EBECRYL 450	Hexafunctional polyester acrylate	Very good lithographic behavior, good pigment wetting and high reactivity.
EBECRYL 525	Polyester resin	Good adhesion to difficult substrates and for OPV on conventional inks.
EBECRYL 648	Modified of bisphenol A epoxy diacrylate	Good pigment wetting, fast cure, high gloss, excellent solvent- and good water resistance.
EBECRYL 657 / 1657	Tetrafunctional polyester acrylate	Very good lithographic behavior and pigment wetting. (EBECRYL 1657 is low odor version)
EBECRYL 811	Tetrafunctional polyester acrylate	Good adhesion to plastics and good cure response. Recommended for waterless offset inks.
EBECRYL 812	Tetrafunctional polyester acrylate	Designed for flexographic applications and good adhesion.
EBECRYL 830	Hexafunctional polyester acrylate	Very good lithographic behavior, good pigment wetting and low intrinsic viscosity.
EBECRYL 845	Tetrafunctional polyester acrylate	Very good lithographic behavior and pigment wetting.
EBECRYL 846 <small>NEW</small>	Modified polyester acrylate	Very high reactivity.
EBECRYL 859 <small>NEW</small>	High Mw polyester acrylate	Excellent lithographic behavior on high speed presses. High reactivity and Very good pigment wetting.
EBECRYL 860	Epoxidised soya bean acrylate	Hot foil stamping.
EBECRYL 870 / 1870	Hexafunctional polyester acrylate	High reactivity and pigment wetting. (EBECRYL 1870 is low odor version)
EBECRYL 1606	Standard bisphenol A epoxy acrylate	Fast cure, high gloss, excellent solvent resistance and low color.
EBECRYL 1608	Standard bisphenol A epoxy acrylate	Fast cure, high gloss, excellent solvent resistance. Low color and low irritancy.
EBECRYL 3420 <small>NEW</small>	Low viscosity, modified epoxy acrylate	Flexible and good pigment wetting.
EBECRYL 3601	Standard bisphenol A epoxy acrylate	Fast cure, high gloss, excellent solvent resistance. Low color and low irritancy.
EBECRYL 3608	Fatty acid modified epoxy acrylate	Good lithographic behavior.
EBECRYL 3701	Modified bisphenol A epoxy acrylate	Flexible and good adhesion to plastics.
EBECRYL 3702	Fatty acid modified epoxy acrylate	Good lithographic behavior and pigment wetting.
EBECRYL 3740	Standard bisphenol A epoxy acrylate	Fast cure, high gloss, excellent solvent resistance. Low color and low irritancy.
EBECRYL 6040	Modified of bisphenol A epoxy diacrylate	Low viscosity. High surface resistance, high gloss and good solvent resistance
IRR 589 <small>NEW</small>	Modified polyol acrylate	Chlorine free, excellent pigment wetting, specifically for adhesion onto plastic and metal.
IRR 616 <small>NEW</small>	Modified polyol acrylate	Outstanding adhesion to plastic substrates, in particular uncoated polyolefins and low viscosity.
IRR 632 <small>NEW</small>	Polyester resin	Cost effective binder with good pigment wetting and good ink water balance.
OTA 480	Propoxylated glycerol triacrylate	Low viscosity and fast cure speed.
TMPTA	Trimethylol propane triacrylate	High cure speed, chemical and abrasion resistance.
Additives		
EBECRYL 350	Silicone diacrylate	Copolymerisable, substrate wetting and slip additive.
EBECRYL 373	Anti misting additive	EBECRYL 373 reduces the misting of paste inks.
EBECRYL 1360	Silicone hexaacrylate	Copolymerisable, substrate wetting and slip additive. Recommended for EB applications.

* EBECRYL™ UV curable resins. UV 固化树脂

Dilution 稀釋组分	Pigment wetting 顏料潤濕	Tack 350 m/min 粘性 350 m/min	Misting 飞溅性	Ink water balance 水油平衡	Reactivity 反应活性	Adhesion 附着力	Rubber compatibility 橡胶相容性	Solvent resistance 耐溶剂型	Flexibility 柔顺性	Yellowing 黄变性	Functionality 官能度	Mw g/mol 分子量 g/mol	Viscosity mPa.s (°C) 粘度 mPa.s (°C)	Density g/cm³ 粘度 g/cm³	AV mgKOH/g 酸值 mgKOH/g	OHV mgKOH/g 羟值 mgKOH/g	Color Gardner 色度 Gardner	-C-C- meq/g
-	●●●●	●●●●	●●	●	●●●●	●●	●●●●	●●●●	●	●●	6	578	16000 (25)	1.18	8	60	3	10.4
-	●●	●●●	●●	●●	●●●●	●●●	●●●●	●●●	●●	●●●	4	571	160 (25)	1.15	0.5	60	2	7.0
-	●●●●	●●●●	●●	●●	●●●●	●●	●●●●	●●●	●	●●●	4	438	1000 (25)	1.11	10	30	400A	9.1
-	●●●●	●●●●	●●●	●●●	●●●	●	●●●●	●●●	●●	●●	2	512	1400 (25)	1.14	5	30	2	3.9
-	●●●	●●●	●	●●	●●●	●●	●●●	●●●	●●	●●●●	3	428	80 (25)	1.09	1	25	200A	6.5
-	●●●	●●	●●	●	●●●●	●●	●●●●	●●●●	●	●●	6	1000	28500 (25)	1.22	-	-	2	-
40 TMPTA	●	●	●●	●●	●●●	●●●●	●●●	●	●●	●	-	5000	90000 (25)	1.28	25	-	5	-
40 OTA480	●	●	●●	●●	●●	●●●●	●●●●	●	●●	●	-	5000	90000 (25)	1.26	25	-	5	-
32 TMPTA	●	●	●●	●●●	●●●	●●●●	●●●●	●	●●	●	-	4400	100000 (25)	1.14	25	-	5	-
-	●●●●	●●●	●●	●●●●	●●●●	●●●	●●	●●	●	●	6	1600	8600 (25)	1.12	20	70	dark	-
40 TPGDA	●	●	●●	●	●	●●●●	●	●●	●●	●●	-	1000	40000 (25)	1.21	25	40	200A	-
25 OTA480	●●●	●●●●	●●	●	●●●●	●	●●●	●●●●	●●	●	2	500	47500 (25)	1.14	2	-	3	-
-	●●●●	●	●●	●●●●	●●●	●	●●●●	●	●●	●	4	1500	125000 (25)	1.03	20	25	dark	-
-	●●	●●●●	●●●●	●●●	●●	●●	●●●	●	●●	●	4	NA	75000 (25)	1.14	8	-	1	-
-	●●●	●●●●	●●	●●	●●	●●	●●●	●●	●●	●●	4	800	8000 (25)	1.14	8	-	1	-
-	●●●	●●	●	●●●	●●●●	●●	●●●	●●●	●	●●	6	1500	50000 (25)	1.18	30	-	3	-
20 OTA	●●●●	●	●●	●●●	●●●	●	●●●●	●	●●	●	4	1500	20000 (25)	1.11	20	-	dark	-
-	●●	●●	●●	●●	●●●	●●	●●	●●	●	●●	6	1100	45000 (25)	1.10	10	-	dark	-
-	●●●●	●●	●●	●●●●	●●●●	●	●●●●	●●	●	●	6	3000	36000 (25)	1.11	3	-	yellow	-
-	●●	●●	●●	●	●	●	●●	●	●●●	●	2	1200	25000 (25)	1.03	15	-	10	-
-	●●●	●●	●	●●●	●●●	●●	●●●	●●	●	●	6	1500	48000 (25)	1.08	15	30	dark	-
20 TMPTA	●●	●	●●	●	●●●	●●	●	●●●	●●	●	2	500	3000 (25)	1.15	2	-	1	-
15 OTA480	●●	●	●●	●	●●●	●	●●	●●●	●●	●	2	500	1000 (60)	1.17	2	205	2	-
-	●●	●●	●●	●●	●●●	●●	●●	●●●	●●	●	2	500	22000 (25)	1.14	2	-	3	-
-	●	●	●●	●	●●●	●●	●●	●●●	●●	●	2	500	3000 (60)	1.20	3	-	3	-
15 OTA480	●●	●●	●●	●●	●●	●	●●	●●	●●	●	2	550	1000 (60)	1.14	2	200	2	-
-	●●	●	●●	●●	●●	●●	●●	●●	●●	●	2	850	7000 (60)	1.14	5	-	6	-
-	●●	●●	●●	●●	●●	●	●●	●●	●●	●	2	500	3600 (60)	1.14	3	-	6	-
-	●	●●	●●	●	●●●	●●	●	●●●	●●	●	2	500	2500 (60)	1.14	2	-	2	-
-	●●	●	●●	●	●●●	●	●●	●●●	●●	●	2	500	25000 (25)	1.14	2	195	2	-
50 TMPTA	●●	●●	●●	●●	●●	●●	●●	●	●●	●	3	1500	50000 (25)	1.08	1	-	6	-
58 TMPTA	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	3	1500	7000 (25)	1.10	1	-	2	-
35 OTA	●●	●●	●●	●●	●●	●	●●	●●	●●	●●	3	2300	60000 (25)	1.10	5	-	dark	-
-	●●	●●	●	●●	●●	●●	●●	●●	●	●●	3	480	90 (25)	1.08	1	60	60A	6.2
-	●●	●●	●	●●	●●	●●	●●	●●	●	●●	3	296	115 (25)	1.11	1	30	50A	9.8
-	-	-	-	-	●●	●●●●	-	-	-	-	2	-	350 (25)	1.05	7	-	10	-
-	●	●●	●●	●	●●	●	●●	-	-	-	-	-	Paste (25)	-	-	-	Yellow	-
-	-	-	-	-	●●	●●●	-	-	-	-	6	-	2100 (25)	1.11	25	-	10	-

重要性能描述	产品描述	产品
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稀释型丙烯酸酯 / 齐聚物

非常高的反应活性，高硬度和高抗划伤性	二季戊四醇六丙烯酸酯	DPHA
低收缩和高反应活性	聚醚四丙烯酸酯	EBECRYL 40
高反应活性和良好的硬度，非刺激性	二三羟甲基丙烷四丙烯酸酯	EBECRYL 140
高反应活性，良好的抗划伤性	改性双酚A二丙烯酸酯	EBECRYL 150
较TMPA具有更高的柔顺性，高硬度，光泽和固化速度	乙氧基三羟甲基丙烷三丙烯酸酯	EBECRYL 160
快速固化，高硬度和耐溶剂性	芳香族六官能度聚酯丙烯酸酯	EBECRYL 220
对金属和塑料良好的附着力	氯化聚酯树脂	EBECRYL 436
对金属和塑料良好的附着力	氯化聚酯树脂	EBECRYL 438
对金属和塑料良好的附着力，提高了胶印印刷适性	氯化聚酯树脂	EBECRYL 446
良好的胶印性能，良好的颜料润湿性和高反应活性	六官能度聚酯丙烯酸酯	EBECRYL 450
对困难基材良好的附着力，推荐用于传统型油墨上的罩光清漆	聚酯树脂	EBECRYL 525
良好的颜料润湿性，快速固化，高光泽，优异的耐溶剂和耐水性	改性双酚A环氧丙烯酸酯	EBECRYL 648
良好的胶印性能和颜料润湿性(EBECRYL 1657是低气味版本)	四官能度聚酯丙烯酸酯	EBECRYL 657 / 1657
对塑料良好的附着力，良好的固化速度，推荐用于无水胶印油墨	四官能度聚酯丙烯酸酯	EBECRYL 811
为柔版印刷油墨而设计，良好的附着力	四官能度聚酯丙烯酸酯	EBECRYL 812
良好的反应活性和抗划伤性	六官能度聚酯丙烯酸酯	EBECRYL 830
良好的胶版印刷性能和颜料润湿性能	四官能度聚酯丙烯酸酯	EBECRYL 845
非常高的反应活性	改性聚酯丙烯酸酯	EBECRYL 846 新产品
优异的高速胶印性能，良好的颜料润湿性能	高分子量聚酯丙烯酸酯	EBECRYL 859 新产品
烫金性能	环氧大豆油丙烯酸酯	EBECRYL 860
高反应活性，优良的胶印性能和颜料润湿性(EBECRYL 1870是低气味版本)	六官能度聚酯丙烯酸酯	EBECRYL 870 / 1870
快速固化，高光泽，优异的耐溶剂性，低色泽	标准双酚A环氧丙烯酸酯	EBECRYL 1606
快速固化，高光泽，优异的耐溶剂性，低色泽，低刺激性	标准双酚A环氧丙烯酸酯	EBECRYL 1608
柔顺性，良好的颜料润湿性	低粘度，改性环氧丙烯酸酯	EBECRYL 3420 新产品
快速固化，高光泽，优异的耐溶剂性，低色泽，低刺激性	标准双酚A环氧丙烯酸酯	EBECRYL 3601
良好的胶印性能	脂肪酸改性环氧丙烯酸酯	EBECRYL 3608
柔顺性，对塑料基材良好的附着力	改性双酚A环氧丙烯酸酯	EBECRYL 3701
良好的胶印性能和颜料润湿性	脂肪酸改性环氧丙烯酸酯	EBECRYL 3702
快速固化，高光泽，优异的耐溶剂性，低色泽，低刺激性	标准双酚A环氧丙烯酸酯	EBECRYL 3740
低粘度，高耐抗性，高光泽和耐溶剂性	改性双酚A环氧丙烯酸酯	EBECRYL 6040
不含氯，出色的颜料润湿性和水油平衡性能，推荐用于增强在塑料和金属上的附着力	改性的多元醇丙烯酸酯	IRR 589 新产品
对塑料基材出色的附着力，尤其适用于未经涂覆的聚烯烃基材，低粘度	改性的多元醇丙烯酸酯	IRR 616 新产品
良好的颜料润湿性和水油平衡性能，综合性能出色的连接料	聚酯丙烯酸酯	IRR 632 新产品
低粘度和快速固化	丙氧基甘油三丙烯酸酯	OTA 480
高固化速度和耐化学品性能及耐磨性能	三羟甲基丙烷三丙烯酸酯	TMPA

助剂

可共聚合，基材润湿和平滑助剂	硅酮二丙烯酸酯	EBECRYL 350
EBECRYL 373 降低油墨色浆的飞溅	防飞溅助剂	EBECRYL 373
可共聚合，基材润湿和平滑助剂，可用于EB固化体系	硅酮六丙烯酸酯	EBECRYL 1360

With the strong growth of the printing and packaging industry in the Asia Pacific region, the increased awareness on environmental issues and the increasingly severe requirements, the printing industry will need to evolve to successfully address the new challenges ahead. Considering the known benefits of and the continuous advancements and innovations in energy-curing technology and products, it comes as no surprise that the UV/EB curing technology is growing at a fast pace in the printing industry.

As a provider of innovative solutions to the global energy-curable graphics market, we're committed to consolidating our leadership position as preferred supplier. To fulfill our objective of delivering superior value to our customers in the Asia Pacific region, **Cytec Industries** is continuously introducing new products to be added to our existing broad range of outstanding energy-curable resins and additives designed for the graphics industry.

The product table in this brochure illustrates our **RADCURE™** product range for **UV/EB lithographic inks** and provides general guidance on properties and technical parameters of specific selected grades to assist you to arrive at the right solution.

Abbreviations / 缩写

Mw	molecular weight	分子量
AV	acid value	酸值
OHV	hydroxyl value	羟值
●	low	低
●●	moderate	中等
●●●	good	良好
●●●●	very good	非常好
●●●●●	excellent	极好
Viscosity 粘度比	Hoppler viscosity, expressed in mPa.s Hoppler粘度, 用mPa.s表示	
Dilution 稀释组分	Parts of diluent in 100 parts of product 在100份产品中所占的比例	
-C=C-	Unsaturation content expressed in meq/g 不饱和含量, 用meq/g表示	

随着亚太地区印刷和包装工业的迅速成长,人们对环境意识的日益增强,和严苛要求的日益增多,印刷工业需要不断地发展来成功面对未来的新挑战。考虑到众所周知的优点和能量固化技术和产品的不断进步和创新,就不会对UV/EB固化技术在印刷工业中如此迅速发展感到奇怪。

作为全球能量固化印刷市场的创新方案的缔造者,我们会继续巩固我们首选供应商的地位。为了实现为亚太地区客户提供出众价值的目标, **氰特工业**正不断研发新产品加入我们现有的广泛的出众的针对印刷市场的能量固化树脂和添加剂产品中。

这本产品目录中的表格列举了我们 **RADCURE™** 针对 **UV/EB 胶印油墨**的产品, 并且提供了产品属性综合的指导以及特殊选择规格的技术参数来帮助您正确实现您的方案。



Cytec world class resin manufacturing site in Shanghai, China
氰特在中国上海的世界级水平的生产基地

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Covers coated with UV varnish
封面涂有UV清漆

Pub. No. 210143E / Man - Version A - Asia

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