

CYTEC



Flexographic Inks 柔性版印刷油墨

RADCURE™

Energy Curable Resins

能量固化树

Asia Pacific 亚太区

Products	Product description	Key features
Oligomers / Diluting acrylates		
DPGDA	Dipropylene glycol diacrylate	Good cure speed and flexibility.
DPHA	Dipentaerythritol hexaacrylate	Very high reactivity, High hardness and high scratch resistance.
EBECRYL™ 40 *	Polyether tetraacrylate	Low shrinkage and high reactivity.
EBECRYL 53	Propoxylated glycerol triacrylate	Low odor version of OTA 480.
EBECRYL 80	Amine modified polyether acrylate	High reactivity and Nitrogen content: 1.5%.
EBECRYL 81	Amine modified polyether acrylate	High reactivity combined with good diluting power. Nitrogen content: 1.4%.
EBECRYL 83	Amine modified polyether acrylate	High reactivity. Low viscosity and low residual odor. Non-irritating. Nitrogen content: 1.0%
EBECRYL 84	Amine modified polyether acrylate	Good adhesion to multiple plastic substrates.
EBECRYL 140	Di(trimethylol propane) tetraacrylate	High reactivity and good hardness. Xi free.
EBECRYL 145	Propoxylated neopentylglycol diacrylate	Xi-free aliphatic difunctional acrylate of low surface tension.
EBECRYL 153 <small>NEW</small>	Diacrylated bisphenol A derivative	Let down for flexo inks and high reactivity.
EBECRYL 160	Ethoxylated trimethylol propane triacrylate	More flexible than TMPTA. Good hardness, high gloss and fast cure speed.
EBECRYL 450	Hexafunctional polyester acrylate	Very good lithographic behavior, good pigment wetting and high reactivity.
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 810	Tetrafunctional polyester acrylate	Very good lithographic behavior, good pigment wetting and low intrinsic viscosity.
EBECRYL 812	Tetrafunctional polyester acrylate	Designed for flexographic applications. Good adhesion.
EBECRYL 870 / 1870	Hexafunctional polyester acrylate	High reactivity. Very good lithographic behavior and pigment wetting. (EBECRYL 1870 is low odor version)
EBECRYL 1040 <small>NEW</small>	N-butyl 1,2-(acryloyloxy) ethyl carbamate	Urethane monoacrylate with low viscosity. Excellent flexibility and adhesion.
EBECRYL 1710	Acrylic oligomer	Very good adhesion combined with good reactivity.
EBECRYL 3301 <small>NEW</small>	Modified bisphenol A epoxy acrylate	Excellent pigment wetting combined with suitable viscosity for three roll mill grinding.
EBECRYL 3420 <small>NEW</small>	Low viscosity, modified epoxy acrylate	Flexible, good pigment wetting.
EBECRYL 3700	Standard bisphenol A epoxy acrylate	Fast cure, high gloss, excellent solvent resistance and good pigment wetting properties.
EBECRYL 3701	Modified bisphenol A epoxy acrylate	Flexible and good adhesion to plastics.
EBECRYL 3703	Amine modified bisphenol A epoxy acrylate	Very good flexibility, high reactivity and good adhesion to plastics.
EBECRYL 7100	Amine functional acrylate co-initiator	Highly efficient co-initiator and excellent adhesion to plastics. Nitrogen content: 3.5%. Can be used as a resin.
EBECRYL 8402	Aliphatic difunctional urethane acrylate	Undiluted. Good flexibility and toughness. Non-yellowing. Low shrinkage.
IRR 440	Binder for litho & flexo	Good pigment wetting & flow, high reactivity and good lithographic behavior.
IRR 572 <small>NEW</small>	Modified bisphenol A epoxy acrylate	Good pigment wetting for all color index and good dispersion stability.
IRR 615 <small>NEW</small>	Modified polyol acrylate	Outstanding adhesion to plastic substrates, in particular uncoated polyolefins and low viscosity.
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.
IRR 639 <small>NEW</small>	Amine modified epoxy diacrylate	Cost effective and highly flexible with good reactivity.
IRR 641 <small>NEW</small>	Amine modified epoxy diacrylate	High reactivity and flexibility.
IRR 642 <small>NEW</small>	Tetrafunctional polyester acrylate	Cost effective, high reactivity, good solvent and scratch resistance properties.
OTA 480	Propoxylated glycerol triacrylate	Low viscosity and fast cure speed.
TMPTA	Trimethylol propane triacrylate	High cure speed, chemical and abrasion resistance.
TPGDA	Tripropylene glycol diacrylate	Good cure speed and flexibility.
Additives / Photoinitiators		
EBECRYL 350	Silicone diacrylate	Copolymerisable, substrate wetting and slip additive.
EBECRYL 1360	Silicone hexaacrylate	Copolymerisable, substrate wetting and slip additive. Recommended for EB applications.
EBECRYL P37	Acrylated derivative of benzophenone	Low odor, excellent surface cure and good solubility.
MODAFLOW™ 1200 *	Acrylic resin	Silicone free defoaming agent with good leveling and low odor.
MODAFLOW 9200	Silicone free leveling agent	Silicone free levelling agent with excellent compatibility.

* EBECRYL™ UV curable resins UV 固化树脂

* MODAFLOW™ flow modifiers 流平助剂

Dilution 稀釋组分	Pigment wetting 顏料潤濕	Reactivity 反应活性	Adhesion 附着力	Flow 流动性	Solvent resistance 耐溶剂型	Flexibility 柔顺性	Yellowing 黄变性	Grinding / Let down 研磨基料 / 降粘组分	Functionality 官能度	Mw g/mol 分子量 g/mol	Viscosity mPa.s (°C) 粘度 mPa.s (°C)	Density g/cm ³ 粘度 g/cm ³	AV mgKOH/g 酸值 mgKOH/g	OHV mgKOH/g 羟值 mgKOH/g	Color Gardner 色度 Gardner	-C=C- meq/g
-	●●	●●	●●●	●●	●●●	●●	●●●	Let down	2	242	10 (25)	1.06	1	40	150A	8.3
-	●●●●	●●●●	●●	●●●●	●●●●	●	●●●	Grinding / Let down	6	578	16000 (25)	1.18	8	60	3	10.4
-	●●	●●●	●●●	●●●●	●●●	●●	●●●	Let down	4	571	160 (25)	1.15	0.5	60	2	7.0
-	●●●●	●●●	●●	●●●●	●●●	●	●●●	Let down	3	480	90 (25)	1.08	1	60	60A	6.2
-	●●	●●●●	●●	●●	●●	●●●	●●	Let down	3	1000	3000 (25)	1.05	-	-	200A	-
-	●●	●●●●	●●	●●●●	●●	●●●	●●	Let down	3	600	100 (25)	1.08	-	-	2	-
-	●●	●●●●	●●	●●	●●●	●●●	●●	Let down	3	1000	500 (25)	1.11	-	-	2	-
-	●●●●	●●●	●●	●●●●	●●●	●●●	●●	Let down	2	300	5000 (25)	1.13	-	-	5	-
-	●●●●	●●●●	●●	●●●●	●●●	●	●●●	Let down	4	438	1000 (25)	1.11	10	30	400A	9.1
-	●●	●●	●●●	●●●	●●●	●●	●●●	Let down	2	328	20 (25)	1.01	1	40	200A	6.1
-	●●●●	●●●	●●	●●●●	●●●	●●	●●	Let down	2	400	115 (25)	1.1	3	35	3	5
-	●●●●	●●●	●●	●●●●	●●●	●●	●●●●	Let down	3	428	80 (25)	1.09	1	25	200A	6.5
-	●●●●	●●●●	●●	●●●●	●●	●	●	Grinding	6	1600	8600 (25)	1.12	20	70	dark	-
25 OTA480	●●●●	●●●●	●	●●●	●●●●	●●	●	Grinding	2	500	47500 (25)	1.14	2	-	3	-
-	●●●●	●●●	●	●●●●	●	●●	●	Grinding	4	1500	125000 (25)	1.03	20	25	dark	-
-	●●	●●●	●●	●●●●	●●●	●●	●●	Let down	4	1000	500 (25)	1.09	20	-	2	-
-	●●●●	●●●	●●●	●●●●	●●	●●	●●	Grinding	4	800	8000 (25)	1.14	8	-	1	-
-	●●●●	●●●●	●●	●●●●	●●●	●	●	Grinding	6	1500	48000 (25)	1.08	15	30	dark	-
-	●●●	●●	●●●●	●●●●	●●	●●●●	●●●●	Let down	-	215	25 (25)	1.07	-	-	100A	4.6
60 HDDA	●●●	●●●	●●●●	●●●	●●	●●	●●●●	Let down	2	-	26000 (25)	1.07	-	-	1	-
25 DPGDA	●●●●●	●●●	●●	●●●●●	●●●●	●●	●	Grinding	2	500	8000 (25)	1.10	2	-	7	-
-	●●●	●●●●●	●●	●●●	●●●●●	●●●	●	Grinding	2	500	22000 (25)	1.14	2	-	3	-
-	●●●	●●●●●	●	●●●	●●●●●	●●	●	Grinding	2	500	4000 (60)	1.14	2	-	3	-
-	●●●	●●●	●●●	●●●	●●●●	●●●	●	Grinding / Let down	2	850	7000 (60)	1.14	5	-	6	-
-	●●●	●●●●	●●●	●●●	●●●●	●●●	●	Grinding / Let down	2	850	4250 (60)	1.17	5	-	5	-
-	●●	●●●●	●●●●	●●●	●●●	●●	-	Let down	-	-	1000 (25)	1.10	-	-	4	-
-	●●	●●●	●●●●	●●●	●●●●	●●●●	●●●●	Let down	2	1000	12500 (25)	1.16	2	-	2	-
10 PETIA	●●●●	●●●●	●●●●	●●●●	●●●	●●●●	●●	Grinding	4	-	11000 (25)	1.10	-	-	13	-
25 TPGDA	●●●●	●●●	●●●	●●●●	●●●●	●●●	●●	Grinding	2	500	8000 (25)	1.10	-	-	7	-
37 DPGDA	●●●●	●●	●●●●●	●●●●	●●●	●●●	●●	Grinding	2	1500	7000 (25)	1.10	1	-	2	-
58 TMPTA	●●●●	●●●	●●●●	●●●●	●●●●	●●●	●●	Grinding	3	1500	7000 (25)	1.10	1	-	2	-
35 OTA	●●●	●●●	●	●●●	●●●●	●●	●●	Grinding	3	2300	60000 (25)	1.10	5	-	dark	-
33 DPGDA	●●●	●●●●	●●●●	●●●	●●●●	●●●	●●	Grinding	2	1800	18500 (25)	1.15	-	-	2	-
8 HDDA	●●●	●●●●	●●●	●●●	●●●	●●●	●	Grinding	2	1800	21000 (25)	1.15	-	-	2	-
-	●●	●●●	●●●	●●●	●●●	●●	●●●	Let down	4	-	140 (25)	1.15	-	-	2	-
-	●●●●	●●●	●●	●●●	●●●	●	●●●	Let down	3	480	90 (25)	1.08	1	60	60A	6.2
-	●●	●●●●	●●●	●●●	●●●	●	●●●●	Let down	3	296	115 (25)	1.11	1	30	50A	9.8
-	●●	●●	●●	●●	●●●	●●	●●●	Let down	2	300	15 (25)	1.05	1	40	50A	6.2
-	-	●●	●●●●	●●●●	-	-	-	-	2	-	350 (25)	1.05	7	-	10	-
-	-	-	●●●●	-	●●	-	-	Let down	6	-	2100 (25)	1.11	25	-	10	-
-	-	-	-	-	-	-	-	-	-	-	solid	-	-	-	-	-
-	-	●	●●	●●●●	●	-	-	Let down	-	-	8500 (25)	-	-	-	Pale	-
-	-	●	●●	●●●●	●	-	-	Let down	-	-	4000 (25)	-	-	-	Pale	-

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

良好的固化速度和柔顺性	二丙二醇二丙烯酸酯	DPGDA
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
OTA 480的低气味版本	丙氧基甘油三丙烯酸酯	EBECRYL 53
高反应活性, 氮含量: 1.5%	胺改性聚醚丙烯酸酯	EBECRYL 80
高反应活性兼具良好的降粘能力, 氮含量: 1.4%	胺改性聚醚丙烯酸酯	EBECRYL 81
高反应活性, 低粘度, 低残留气味, 无刺激性, 氮含量: 1.0%	胺改性聚醚丙烯酸酯	EBECRYL 83
对各种塑料基材具有良好的附着力	胺改性聚醚丙烯酸酯	EBECRYL 84
高反应活性和良好的硬度, 非刺激性	二羟甲基丙烷四丙烯酸酯	EBECRYL 140
非刺激性, 低表面张力脂肪族二官能度丙烯酸酯	丙氧基化新戊二醇二丙烯酸酯	EBECRYL 145
用于柔版油墨降粘组分, 反应活性高	改性双酚A二丙烯酸酯	EBECRYL 153 新产品
较TMPTA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
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
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能	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
良好的胶印性能, 颜料润湿性和低粘度	四官能度聚酯丙烯酸酯	EBECRYL 810
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
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
低粘度聚氨酯丙烯酸酯, 出色的柔顺性和附着力	脂肪族单官能度聚氨酯丙烯酸酯	EBECRYL 1040 新产品
良好的附着力兼具优良的反应速度	丙烯酸酯齐聚物	EBECRYL 1710
优异的颜料润湿性并兼具适合三辊研磨的粘度	改性双酚A环氧丙烯酸酯	EBECRYL 3301 新产品
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, 优异的耐溶剂型, 良好的颜料润湿性	标准双酚A环氧丙烯酸酯	EBECRYL 3700
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
优良的柔顺性, 高反应活性, 对塑料基材良好的附着力	胺改性双酚A环氧丙烯酸酯	EBECRYL 3703
高效助引发剂, 对塑料基材出色的附着力, 氮含量: 3.5%, 可作为树脂使用	三级胺助引发剂	EBECRYL 7100
未稀释, 良好的柔顺性和强度, 不黄变, 低收缩	脂肪族二官能度聚氨酯丙烯酸酯	EBECRYL 8402
良好的颜料润湿性和流动性, 高反应活性和良好的胶印性能	用于胶印和柔版印刷的连接料	IRR 440
对各个颜色均具有良好的颜料润湿性, 良好的分散稳定性	改性双酚A环氧丙烯酸酯	IRR 572 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 615 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
出色的柔顺性兼具良好活性	胺改性环氧丙烯酸酯	IRR 639 新产品
出色反应活性兼具出色柔顺性	胺改性环氧丙烯酸酯	IRR 641 新产品
高反应活性, 出色的耐溶剂性和高抗划伤性	四官能度聚酯丙烯酸酯	IRR 642 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	TMPTA
良好的固化速度和柔顺性	三丙二醇二丙烯酸酯	TPGDA

助剂/光引发剂

可共聚合, 基材润湿和平滑助剂	硅酮二丙烯酸酯	EBECRYL 350
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
低气味, 出色的表面固化性能	二苯甲酮丙烯酸酯化衍生物	EBECRYL P37
良好的流平性能兼具良好的消泡性能, 不含有机硅	丙烯酸酯树脂	MODAFLOW 2100
非硅流平剂, 出色的相容性	非硅类流平剂	MODAFLOW 9200

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 flexographic 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 柔性版印刷油墨** 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

Contact Us / 联系我们

Cytec Surface Specialties - Asia Pacific

China / 中国
Tel / 电话: +8621 6422 8920
Fax / 传真: +8621 6422 8980
E-mail / 电子邮件: China@cytec.com

Korea / 韩国
Tel / 电话: +822 3484 6723
Fax / 传真: +822 3452 0549
E-mail / 电子邮件: Korea@cytec.com

Singapore / Indonesia / Malaysia / Pakistan /
Philippines / 新加坡/印度尼西亚/马来西亚/
巴基斯坦/菲律宾
Tel / 电话: +603 7861 3188
Fax / 传真: +603 7861 3100
E-mail / 电子邮件: SIMPP@cytec.com

Australia / New Zealand
澳大利亚/新西兰
Tel / 电话: +613 9857 3011
Fax / 传真: +613 9849 0533
E-mail / 电子邮件: ANZ@cytec.com

Daicel - Cytec, Japan 日本
Tel / 电话: +813 3548 4482
Fax / 传真: +813 3272 1815

Cytec Surface Specialties S.A./N.V.
Belgium
Tel / 电话: +322 560 4511
Fax / 传真: +322 560 4521

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Covers coated with UV varnish
封面涂有UV清漆

Pub. No. 210142E / Man - Version A - Asia

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氰特特种表面技术公司 - 亚太区

Taiwan / 中国台湾
Tel / 电话: +8862 2705 3969 ext 29
Fax / 传真: +8862 2705 3967
E-mail / 电子邮件: China@cytec.com

Japan / 日本
Tel / 电话: +813 3231 6065
Fax / 传真: +813 3231 6070
E-mail / 电子邮件: Japan@cytec.com

Thailand / Vietnam /
泰国/越南
Tel / 电话: +662 296 9100
Fax / 传真: +662 295 4985-6
E-mail / 电子邮件: Thailand@cytec.com

India / 印度
Tel / 电话: +9122 6697 8237
Fax / 传真: +9122 6697 8239
E-mail / 电子邮件: India@cytec.com

SK - Cytec, Korea 韩国
Tel / 电话: +822 501 1097
Fax / 传真: +822 501 0170

Cytec Surface Specialties Inc.
North America
Tel / 电话: +1973 357 3193
Fax / 传真: +1678 255 4746