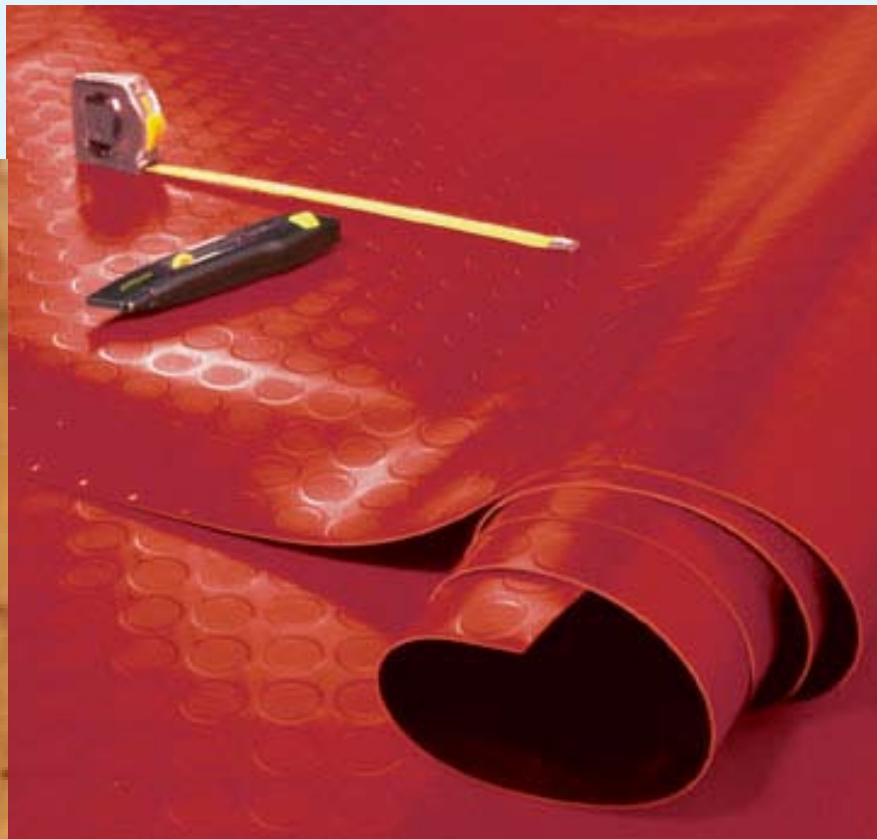


CYTEC



Industrial Coatings

RADCURE™

Energy curable resins

Asia Pacific

From defining more efficient processes for mining customers to developing new additives for polymer-based alternatives to wood and metals, the product lines of Cytec Specialty Chemicals are unified in their dedication to customer-driven innovation.

Working closely with our customers, we develop revolutionary technologies that enable them to improve performance and productivity, enter new markets, and refine new applications. How to improve mine profitability or coatings efficiency in the face of important environmental concerns? How to develop polymers that really stand up to UV light? How to use phosphines to create better, safer biocides and fumigants for agriculture? Our technology and sales teams work on-site with customers every day to address today's business challenges and troubleshoot tomorrow's.

The applications are diverse, but the commitment is uniform: finding better solutions for customers through continual research, ongoing collaboration and a passion for innovation.

An Expansive Portfolio

Cytec Specialty Chemicals is a complete solution provider for customers requiring high-value surface technologies in industries that include industrial coatings, automotive, architectural, wood and paper, graphics, adhesives and opto-electronics.

We offer our customers advanced and diverse products and technologies for surfaces with an emphasis on environmentally friendly products such as UV/EB (Ultra-violet/Electron beam) curable resins and additives, powder coating resins and additives, as well as waterborne and solventborne liquid coatings resins and additives. We are committed to working with our customers to develop environmentally advanced solutions and we are dedicated to open communication concerning the safe handling, distribution, use and disposal of the products we make.

A Focus on Customer Satisfaction

Cytec Specialty Chemicals operates a globally integrated set of order fulfillment IT systems and processes. All Spec Chem personnel in the order

fulfillment processes are dedicated to delivering customer satisfaction through reliable and cost-effective supply of product to our customers. Cytec Spec Chem has specialized personnel in Customer Service, Procurement, Manufacturing, Planning and Logistics to achieve this goal. In addition to timely and accurate order fulfillment, there is an equally important focus on maintaining safety and protecting the environment at all steps in the process, from the procurement of raw materials to the delivery of finished goods to the customer's door.

Dedication to Operational Excellence

Cytec's Spec Chem Manufacturing Organization operates globally to provide superior service to our customers in all regions. Our vision of operational excellence brings value to our customers through ongoing, continuous improvement initiatives, including Lean Manufacturing, Six Sigma Principles, and Best Practice Engineering. Our value proposition is driven by excellence in our Safety, Environmental, Quality Systems and Employee Development Programs. We are structured by business technology, which enables our sites to work transparently with R&D, Customer Service and the Businesses, to share best practices across common processes. We also are able to gain leverage from overall global manufacturing synergies to most efficiently meet customer needs.

Key product lines

- Liquid Coating Resins and Additives
- Mining Chemicals
- Phosphine and Phosphorus Specialties
- Polymer Additives
- Powder Coating Resins and Additives
- RADCURE™ UV/EB Curable Resins and Additives
- Pressure Sensitive Adhesives
- Specialty Additives
- Specialty Urethanes

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04 Industrial Applications

Parquet, furniture and paper foils coatings

Cytec has been supporting formulators for more than 30 years with a range of products that benefits the most demanding wood and paper coating applications.

Cytec's radiation curable portfolio is able to meet formulators' needs whether for outstanding systems for parquet coatings or clear varnish to protect kitchen cabinets.

Paper foils

Products	General use	Scratch resistance	Flexibility	Adhesion	Reactivity
EBECRYL™ 40*		●		●	●
EBECRYL 145	●				
EBECRYL 168				●	
EBECRYL 210			●		
EBECRYL 230			●		
EBECRYL 525				●	
EBECRYL 605	●				●
EBECRYL 837		●			●
EBECRYL 841					●
EBECRYL 851	●				
EBECRYL 852	●				
EBECRYL 892		●			●
EBECRYL 1290		●			●
EBECRYL 5129		●			●
EBECRYL 6040	●				●
EBECRYL 8405	●				●
EBECRYL P115	●				●
DPGDA	●				
DPHA		●			●
OTA 480	●				●
PETIA		●		●	●
TMPEOTA	●				
TMPTA	●				●

*EBECRYL™ UV curable resins and diluting oligomers



Furniture and cabinetry coatings

Products	Primer and sealer	Topcoat	Pigmented systems
EBECRYL™ 12*	●	●	●
EBECRYL 13	●	●	●
EBECRYL 80	●		●
EBECRYL 81	●		
EBECRYL 83	●	●	●
EBECRYL 145	●	●	●
EBECRYL 168	●		●
EBECRYL 210	●	●	●
EBECRYL 264		●	
EBECRYL 600 series	●	●	
EBECRYL 648			●
EBECRYL 810	●	●	●
EBECRYL 851	●	●	
EBECRYL 852	●	●	
EBECRYL 853	●	●	
EBECRYL 880	●	●	
EBECRYL 884	●		
EBECRYL 885	●		
EBECRYL 3700	●	●	
EBECRYL 6040	●	●	
EBECRYL P115	●	●	
RAYLOK™ 1621*	●		
RAYLOK 1622	●	●	
UCECOAT™ 6558*	●		
UCECOAT 7177	●	●	
UCECOAT 7571		●	
UCECOAT 7631		●	
UCECOAT 7655		●	●
UCECOAT 7660	●		
UCECOAT 7699		●	●
UCECOAT 7849		●	●
DPGDA	●	●	●
OTA 480	●	●	●
TMPEOTA			●

*EBECRYL™ UV curable resins and diluting oligomers

*RAYLOK™ UV curable engineered resins

*UCECOAT™ waterbased UV curable resins

Parquet coatings

Products	Primer	Sealer	Topcoat	Cork
EBECRYL 12	●		●	●
EBECRYL 13	●		●	●
EBECRYL 80		●	●	
EBECRYL 83		●	●	
EBECRYL 204		●	●	●
EBECRYL 210		●		●
EBECRYL 264		●	●	●
EBECRYL 600 series		●		
EBECRYL 810		●	●	
EBECRYL 837			●	
EBECRYL 851		●	●	
EBECRYL 852		●	●	
EBECRYL 853	●	●	●	
EBECRYL 884		●		
EBECRYL 885		●		
EBECRYL1259	●			
EBECRYL1290			●	
EBECRYL 3105	●			
EBECRYL 3500	●			
EBECRYL 5129			●	
EBECRYL 6040		●		
EBECRYL 6202	●	●		
RAYLOK 1621	●			
RAYLOK 1622	●	●	●	
RAYLOK 1721	●			
RAYLOK 1722		●		
UCECOAT 6558	●			
UCECOAT 7177	●	●	●	●
UCECOAT 7655			●	●
UCECOAT 7699			●	
UCECOAT 7849			●	●
DPGDA		●	●	●
DPHA			●	
IRR 620		●		●
OTA 480	●	●	●	●

06 Industrial Applications (continued)

Plastic coatings

Radiation curing is used increasingly to coat a wide range of plastic substrates in automotive, audio/video, packaging and many other applications. This section shows the key RADCURE™ products in Cytec's portfolio that are recommended for use on plastic substrates, with their key performance characteristics.

If the formulated product is applied directly on to the plastic substrate, adhesion to the surface

is a key characteristic. Adhesion can be achieved either by first applying a primer or by using our products with good adhesion properties. In general, adhesion depends strongly on the specific characteristics of the plastic surface and other components in the formulation. Yet for some of Cytec's radiation curable products we have demonstrated improved surface adhesion on specific plastic substrates as shown in the table below.

Product adhesion on different substrates

Products	PC	PE	PP	PMMA	PVC	ABS	PS	PET	SMC/ BMC
Adhesion promoting resins									
EBECRYL™ 436*		●	●			●	●		
EBECRYL 584		●	●			●			
EBECRYL 740-40TP		●	●				●		
EBECRYL 745		●	●				●		
EBECRYL 767		●	●				●		
EBECRYL 1710	●				●	●	●		
EBECRYL 3703		●							
EBECRYL 3740/TP 20	●				●	●	●		
Adhesion promoting diluting acrylates									
EBECRYL 40	●	●	●	●	●	●	●	●	●
EBECRYL 114	●								
EBECRYL CL 1039	●								
EBECRYL 7100		●						●	
DPGDA								●	
HDDA	●				●	●		●	●
IBOA					●				
ODA		●	●						
PETIA	●	●	●	●	●	●	●	●	●
PETRA	●	●	●	●	●	●	●	●	●
TMPEOTA	●			●	●	●			
TMPTA	●			●	●	●			
TPGDA	●							●	

*EBECRYL™ UV curable resins and diluting oligomers



Product performance characteristics

Products	Flexibility	Reactivity	Stain resistance/PVC	Outdoor resistance	Scratch resistance/PC (steel wool)
EBECRYL™ 230*	●●●●	●	●	●●●	●
EBECRYL 264	●	●●●	●●●	●●	●●●
EBECRYL 284	●●	●●	●●	●●●●	●●●
EBECRYL 294/25	●	●●●	●●●	●●●●	●●●
EBECRYL 837	●●	●●●	●●●	●●	●●●
EBECRYL 1200	●●	●●●●	●●	●●●	●●●
EBECRYL 1290	●	●●●●	●●●●	●●	●●●●
EBECRYL 1290K	●	●●●●	●●●●	●●	●●●●
EBECRYL 3703	●●	●●●●	●●●	●	●●●
EBECRYL 4820	●●	●	●●●●	●●●●	●●
EBECRYL 4858	●●●	●●	●●●	●●●●	●●
EBECRYL 5129	●	●●●●	●●●●	●●	●●●●
EBECRYL 8210	●	●●●●	●●●●	●●	●●●●
EBECRYL 8254	●●	●●●	●●	●●	●●●
EBECRYL 8301	●	●●●●	●●●●	●●	●●●●
EBECRYL 8402	●●●	●●	●●	●●●●	●●●
EBECRYL 8405	●●●	●●●	●●●●	●●●●	●●●
EBECRYL 8407	●●●●	●●	●●	●●	●●
UCECOAT™ 7571*	●●●	●●	●●●●	●●	●●
UCECOAT 7655	●	●●●●	●●●●	●●	●●●●
DPHA	●	●●●●	●●●●	●●	●●●●
IRR 679	●●	●●●	●●	●	●●●
IRR 680	●	●●●	●●●	●●	●●●

*EBECRYL™ UV curable resins and diluting oligomers

*UCECOAT™ waterbased UV curable resins

08 Industrial Applications (continued)

Mobile phone plastic coatings

Mobile phone coatings are subject to very demanding tests in order to meet high performance demands such as excellent adhesion and strong resistance to scratch, abrasion, chemical and even boiling water.

The UV curable topcoat is applied to bring out these desired performances. This topcoat is applied onto a layer of conventional metallic or a pearlescent or solid coloured primer coating.

Products	Pencil hardness	RCA	Flexibility	Yellowing	Adhesion	Surface aspect	Application in the formulation
EBECRYL™ 264*	●●	●●	●●●●	●●●●	●●●	●●●	Adjusting resin
EBECRYL 270	●	●	●●●●	●●●●	●	●●●	Flexibilizer
EBECRYL 284	●●	●●	●●●●	●●●●	●●●	●●●●	Flexible resin
EBECRYL 294/25	●●●	●●	●●	●●●●	●●●	●●●	Adjusting resin
EBECRYL 1290	●●●●	●●●	●	●●●	●●	●●●●	Main resin
EBECRYL 1290K	●●●●	●●●●	●	●●●	●●	●●●●	Main resin
EBECRYL 1290N	●●●●	●●●●	●	●●	●●	●●●	Main resin
EBECRYL 1290NAE	●●●●	●●●●	●	●●	●●	●●●	Main resin
EBECRYL 5129	●●●●	●●●●	●●	●●●	●●	●●●●	Main resin
EBECRYL 8254	●●●	●●●	●●	●●●	●●●	●●●●	Main resin
EBECRYL 8301	●●●●	●●●●	●	●●●	●●	●●●●	Main resin
EBECRYL 9260	●●●	●●●	●●●	●●●●	●●●	●●●●	Adjusting resin
EBECRYL 9310	●●●●	●●●●	●	●●●●	●●	●●●●	Main resin
EBECRYL 9390	●●●●	●●●	●	●●●●	●●	●●●●	Main resin
IRR 680	●●●●	●●●	●●●	●●●●	●●●●	●●●	Main resin

*EBECRYL™ UV curable resins and diluting oligomers

Vacuum metallization coatings

The UV curable primers on plastics combined with UV curable topcoats on very thin metalized layers are used to achieve a mirror finish. This metallized layer is approximately 30-300um thin and is composed of either aluminium, chromium or tin deposited by the vacuum metallization process. In addition to

the aesthetics of a mirror finish, this UV coated shiny thin layer of metal over the plastic substrates enables better chemical and corrosion resistance, good mechanical properties, faster production speeds, energy saving and a cost effective finish.

Products	Pencil hardness	Flexibility	Chemical resistance	Adhesion	Surface aspect	Main application and suggested usage	
						Primer	Topcoat
EBECRYL™ 220*	●●●●●	●	●●●●●	●●	●●●●●	15 - 20%	-
EBECRYL 230	●	●●●●●	●	●●	●●●●●	5 - 10%	-
EBECRYL 244	●●	●●●●●	●●●●	●●●●●	●●●●●	10 - 15%	-
EBECRYL 770	●●	●●	●●●●	●●●●	●●	2 - 5%	-
EBECRYL 830	●●●●●	●●	●●●●●	●●●●	●●●●●	15 - 20%	5 - 10%
EBECRYL 1290	●●●●●	●	●●●●●	●●	●●●●●	15 - 20%	5 - 10%
EBECRYL 1290K	●●●●●	●	●●●●●	●●	●●●●●	15 - 20%	5 - 10%
EBECRYL 3701	●●●●	●●●●	●●●●●	●●●●	●●●●●	15 - 20%	-
EBECRYL 9206	●●●●	●●●●	●●●●	●●●●	●●●●●	25 - 35%	5 - 10%
EBECRYL 9636	●●●●	●●	●●●●●	●●●●	●●●●●	15 - 20%	15 - 20%
EBECRYL 9656	●●●●	●●	●●●●●	●●●●	●●●●●	15 - 20%	15 - 20%
IRR 679	●●	●●●●	●●●●	●●●●●	●●●●	-	25 - 40%

*EBECRYL™ UV curable resins and diluting oligomers

Resilient flooring coatings

Apart from materials such as hardwood, ceramic tiles, carpets and fabrics, the flooring market offers new flooring solutions based on vinyl, polyolefin, rubber and linoleum.

Performance as well as design demands for this type of flooring have been increasing over the past decade and going through a rapid evolution of quality improvement.

For enhanced stain and abrasion resistance and to avoid shoe scuff marks, Cytec offers a broad range of waterborne UV and 100% UV curable products to protect various types of resilient flooring.

Products	PVC	Linoleum	PP-PE	Scratch resistance
EBECRYL™ 145*	●	●		
EBECRYL 204	●	●		●
EBECRYL 205	●	●		●
EBECRYL 230	●	●	●	
EBECRYL 264	●	●	●	●
EBECRYL 265	●	●		●
EBECRYL 284	●	●	●	●
EBECRYL 294/25	●	●	●	●
EBECRYL 837	●			●
EBECRYL 1290				●
EBECRYL 5129				●
UCECOAT™ 7571*	●	●		●
UCECOAT 7655	●	●		●
UCECOAT 7849	●	●		●
DPGDA	●	●		
DPHA			●	●
HDDA	●	●		
TMPEOTA	●	●		

*EBECRYL™ UV curable resins and diluting oligomers

*UCECOAT™ waterbased UV curable resins

Metal coatings

Cytec's focus on innovation and technology has resulted in the development of a range of UV curable resins specially designed for metal coating applications.

UV technology is increasingly important in industrial metal coatings because of the excellent properties of the formulated coating and fast curing.

Tailor-made radiation-curable systems from Cytec fulfill the specific demands of various metal substrates offering adhesion, excellent reactivity, high chemical resistance, flexibility and corrosion resistance.

Products	General metal	Steel	Aluminium	Corrosion resistance	Flexibility	Adhesion promoter
EBECRYL™ 109*	●	●			●	
EBECRYL 114		●	●	●	●	●
EBECRYL 130	●					
EBECRYL 145	●					●
EBECRYL 168	●	●	●			●
EBECRYL 171	●	●	●	●		
EBECRYL 230	●	●	●		●	
EBECRYL 280/15IB	●	●		●	●	
EBECRYL 375	●	●	●		●	●
EBECRYL 402	●	●		●		
EBECRYL 525	●					
EBECRYL 584	●					
EBECRYL 745	●	●	●			●
EBECRYL 3213	●	●		●		
EBECRYL 3300	●	●		●	●	
EBECRYL 3416	●	●		●		
EBECRYL 8210	●					
EBECRYL 8306	●	●	●	●	●	
EBECRYL 8307	●	●	●	●		
IBOA	●	●	●			
IRR 608	●			●	●	
IRR 638	●			●	●	

*EBECRYL™ UV curable resins and diluting oligomers

12 | Product Range

UV curable waterborne resins

The UCECOAT™ range of radiation curable polyurethane dispersions is designed to meet the most severe requirements for furniture topcoats. The formulated coatings show outstanding adhesion on different woods, flexibility, excellent chemical and scratch resistance. It is possible to obtain tack-free surface with most of the UCECOAT polyurethane dispersions after physical drying. Hence, dust collection is minimized

and handling is easier. Water soluble aliphatic urethane acrylates give excellent results in primer formulations with uncomparable wood wetting and excellent adhesion on a wide variety of woods. During the drying process, primers based on soluble urethane acrylate UCECOAT grades does not require flash-off as water is partially absorbed into the wood and mostly evaporated by the heat of the UV lamps.

Waterborne resins

Products	Product description	Solid content	Viscosity	pH	Max.average particle size	Min. film formation temp.°C
UCECOAT 6558	Aliphatic urethane acrylate solution in water	50	4500	-	-	-
UCECOAT 6569	Aliphatic urethane acrylate solution in water	95	6000 (60°C)	-	-	-
UCECOAT 7177	Aliphatic urethane acrylate in water	40	<200 (B)	7	-	-
UCECOAT 7570	Aromatic polyurethane dispersion	35	500	7	<150	<0
UCECOAT 7571	Aliphatic polyurethane dispersion	35	<200 (B)	7.5	100	<0
UCECOAT 7578	Aromatic acrylic polyurethane dispersion	38	200	7	<150	<0
UCECOAT 7631	Aliphatic polyurethane dispersion	35	<200	7	<100	0
UCECOAT 7655	Aliphatic polyurethane dispersion	35	<200	7	<150	0
UCECOAT 7660	Aliphatic urethane acrylate in water	40	45	7	<150	<0
UCECOAT 7699	Aliphatic polyurethane dispersion	35	<200	7	<150	6
UCECOAT 7849	Aliphatic polyurethane dispersion	35	<200 (B)	7.5	100	<0

Water-compatible monomers

Products	Product description	Solid content	Viscosity	Colour	Density	Molecular weight
EBECRYL™ 11*	Polyethylene glycol 600 diacrylate	100	120	10	1, 12	700
EBECRYL 12	Polyether triacrylate	100	155	3	1, 11	800
EBECRYL 13	Polyethylene glycol 400 diacrylate	100	60	2	1, 11	500

*EBECRYL™ UV curable resins and diluting oligomers



Molecular weight	Co-solvent	Key features
2000	none	Especially recommended as wood primer. Excellent wood wetting and adhesion. High flexibility and non-yellowing. Resoluble in water before UV cure.
2000	none	Recommended for wood primer. Good adhesion and transparency. Good flexibility, high solid content and high viscosity. Good yellowing resistance.
5500	none	Excellent adhesion and wetting on wood. Low viscosity. High flexibility, low yellowing. Water re-emulsifiable before UV cure and can be spray coated
10000	none	Recommended for wood primer and basecoat. Good adhesion and stain resistance. Good compatibility. Not resoluble before UV curing.
10000	none	Recommended for coatings on wood. Excellent stain resistance, good flexibility and hardness. No irritant labelling. Tack-free before UV cure.
10000	none	Recommended for wood primer and basecoat. Excellent adhesion for wood and good compatibility. Not resoluble before UV curing.
-	none	Recommended for exterior coating. Good chemical and mechanical resistance. Easy application by spray and curtain.
-	none	Recommended for top coat clear and white pigmented on wooden furniture, resilient flooring and plastic substrates. Tack-free before curing, excellent reactivity, very high scratch resistant, outstanding stain and chemical resistance.
10000	none	Recommended for basecoats for wooden furniture. Xi free with good colloidal stability. Resoluble before curing. Excellent adhesion on several wood. High flexibility and hardness with good stain and mechanical resistance.
-	none	Recommended for high end wooden furniture top coats especially pigmented. High reactivity with outstanding scratch and stain resistant. Good hardness. Tack-free before curing.
10000	none	Recommended for coatings on wood. Good stain and outdoor performance. No irritant labelling. Tack-free before cure. Excellent stability.

Functionality	Co-solvent	Xi-lable	Product feature
2	none	yes	100% water soluble, good flexibility.
3	none	yes	Partially water soluble up to 50%, flexible, light colour and low viscosity, very good wood wetting.
2	none	yes	Partially water soluble up to 50%, very good diluting power, good flexibility, good stain resistance and toughness, light colour and reasonable reactivity.

14 Product Range (continued)

Urethane acrylates

Urethane acrylates are the most versatile products within the range. They are able to provide a wide range of performance characteristics. Depending on the specific product chemistry, virtually any performance level can be achieved in terms of

softness/hardness, flexibility, non-yellowing and cure speed. Products are available in a wide range of viscosities. Aliphatic urethane acrylates are, in comparison to aromatic urethane acrylates, known for their non-yellowing performance.

Aromatic urethane acrylates

Products	Dilution	Viscosity	Colour	Density	Molecular weight	Functionality
EBECRYL™ 204*	25 HDDA	17000	2	1, 12	2000	3
EBECRYL 205	25 TPGDA	30000	2	1, 22	2000	3
EBECRYL 210	-	3900 [▲]	2	1, 11	1500	2
EBECRYL 215	20 TPGDA	16500	2	1, 10	1500	2
EBECRYL 220	-	28500	2	1, 22	1000	6
EBECRYL 2220	-	24000	2	1, 18	1200	6
EBECRYL 6202	25 DPGDA	8000	2	1, 10	1500	2
IRR 620	10 EB110	4000	2	1, 15	1500	2

Aliphatic urethane acrylates

EBECRYL 230	-	40000	150 A	1, 08	5000	2
EBECRYL 244	10 HDDA	190000	0.5	1, 12	-	2
EBECRYL 264	15 HDDA	45000	2	1, 12	2000	3
EBECRYL 265	25 TPGDA	35000	2	1, 13	2000	3
EBECRYL 270	-	3000 [▲]	2	1, 10	1500	2
EBECRYL 280/15IB	15 IBOA	2500 [▲]	2	1, 12	1200	2
EBECRYL 284	12 HDDA	2100 [▲]	2	1, 18	1200	2
EBECRYL 294/25	25 HDDA	7000 [▲]	2	1, 10	1500	3
EBECRYL 402	20 HDDA, 24 TMPFA, 6 TPGDA	900 (†)	5	1, 12	2500	2
EBECRYL1259	35 HPMA	12000	2	1,07	2000	3
EBECRYL1290	-	2000 [▲]	1	1.19	1000	6
EBECRYL1290K	-	1600 [▲]	200 A	-	1000	6
EBECRYL1290KAE	14 Ethyl Acetate	900	200 A	-	1000	6
EBECRYL 4820	35 HDDA	3300 (†)	1	1,08	1900	3
EBECRYL 4883	15 TPGDA	161000	0.5	1, 10	-	2
EBECRYL 8808	-	17000 [▲]	2	1, 18	-	2
IRR 638	30 IBOA	21000	2	1, 10	2700	2

*EBECRYL™ UV curable resins and diluting oligomers



Key features	Reactivity	Hardness	Flexibility	Chemical resistance	Adhesion
General purpose, good abrasion and scratch resistance.	3	3	2	3	3
General purpose, good abrasion and scratch resistance.	3	3	2	3	2
General purpose. Flexible.	1	1	4	2	4
General purpose. Tough.	1	2	3	2	3
Used as additive to improve surface hardness and chemical resistance.	4	4	1	4	1
Outstanding surface hardness and solvent resistance. High reactivity.	4	4	1	4	1
General purpose, good abrasion resistance.	1	2	3	2	3
Outstanding abrasion resistance, best compromise between grit feeder and CS10 abrasion resistance.	2	2	3	2	3
Used to improve flexibility and adhesion.	1	1	4	1	3
Good flexibility. Good water resistance and thermal resistance.	2	2	3	3	3
General purpose, excellent abrasion and scratch resistance.	3	3	2	4	3
General purpose, excellent abrasion and scratch resistance.	3	3	2	4	3
Used as flexibilizer.	1	1	4	1	2
Adhesion and good exterior durability.	2	2	3	2	3
Excellent exterior durability.	2	2	3	2	3
Best stain and abrasion resistance, good exterior durability and good thermal stability.	3	3	2	4	3
Good hardness and corrosion resistance.	2	3	2	3	2
Good heat resistance.	1	2	3	2	3
High scratch resistance, high RCA.	4	4	1	4	1
High reactivity. Excellent scratch and abrasion resistance. High reactivity and good hardness, high RCA at low thickness.	4	4	1	4	1
High reactivity with good hardness. Excellent scratch and abrasion resistance.	4	4	1	4	1
Excellent exterior durability.	1	3	2	4	3
Good flexibility and abrasion resistance. Good exterior durability with good adhesion.	2	2	3	2	3
Excellent exterior durability and toughness. Non-yellowing.	2	2	3	2	3
Excellent flexibility. Good adhesion to metal and good corrosion resistance.	2	2	4	3	4

Aliphatic urethane acrylates

Products	Dilution	Viscosity	Colour	Density	Molecular weight	Funct.
EBECRYL™ 1290N*	-	1600 [▲]	200 A	-	1000	6
EBECRYL 1290NAE	14 Ethyl Acetate	900	200 A	-	1000	6
EBECRYL 4858	-	7000	3	1, 14	450	2
EBECRYL 5129	-	700 [▲]	2	1, 18	800	6
EBECRYL 8200	50 BuAc	1400	100 A	1, 1	8000	2
EBECRYL 8210	-	4500	2	1, 12	600	4
EBECRYL 8211	25 Tol / BuAc	2900	50 A	1, 09	10000	6
EBECRYL 8212	23 BuAc 22 Toluene	1000	50 A	1, 03	10000	6
EBECRYL 8254	-	2500	2	1, 15	1200	6
EBECRYL 8301	-	24600	0.5	1, 16	-	6
EBECRYL 8306	45 TMPFA	10000 (+)	1	1, 14	5000	2
EBECRYL 8307	30 HPMA	4000 (+)	2	1, 10	3500	2
EBECRYL 8311	-	9500	2	1, 10	-	3
EBECRYL 8402	-	12500	2	1, 16	1000	2
EBECRYL 8405	20 HDDA	4000 [▲]	2	1, 13	2700	4
EBECRYL 8407	35 DPGDA	17000 (+)	6	1, 11	5100	2
EBECRYL 8465	-	21000 [▲]	2	1, 14	1400	3
EBECRYL 8701	-	4500 [▲]	2	1, 13	2000	3
EBECRYL 8804	-	17000 [▲]	2	1, 18	-	2
EBECRYL 8807	-	9000 [▲]	2	1, 05	1000	2
EBECRYL 9206	30 TMPTA	72000	2	1, 22	2000	3
EBECRYL 9260	-	4000 [▲]	2	1, 16	1500	3
EBECRYL 9310	10 TMPTA	4800 [▲]	2	1, 15	1000	6
EBECRYL 9390	-	2000 [▲]	2	1, 19	1000	6
IRR 679	30 BuAc	1600	35 A	1, 00	-	2
IRR 680	25 BuAc	1100	45 A	1, 00	-	4

*EBECRYL™ UV curable resins and diluting oligomers

Key features	Reactivity	Hardness	Flexibility	Chemical resistance	Adhesion
Low yellowing. High reactivity with good hardness. Excellent scratch and abrasion resistance. High RCA at low thickness.	4	4	1	4	1
Low yellowing. High reactivity with good hardness. Excellent scratch and abrasion resistance.	4	4	1	4	1
Excellent exterior durability, excellent scratch and impact resistance.	3	3	2	3	4
Good scratch and abrasion resistance steel wool resistance.	4	4	1	4	2
High chemical resistance, low shrinkage, hard, tack free after solvent evaporation and top coat for thin layers.	2	3	2	4	3
OH-functionalized urethane acrylate for dual cure application.	4	4	1	4	4
Good compromise hardness / flexibility.	3	3	3	3	4
Tack free after solvent evaporation. Excellent adhesion on selected plastic .	3	2	2	3	4
Low viscous and high reactivity. Good chemical resistance with excellent scratch resistance.	3	3	2	3	2
Good reactivity with excellent hardness. Outstanding scratch resistance with good exterior durability.	4	2	4	2	3
Good flexibility and corrosion resistance.	2	2	3	3	4
High flexibility and corrosion resistance.	2	1	4	3	3
Nanocomposite based with outstanding hardness and good weatherability. Excellent abrasion, chemical and scratch resistance.	2	4	1	3	2
Excellent flexibility and abrasion resistance.	2	2	4	2	4
Good exterior durability and reactivity.	2	2	2	2	3
Excellent flexibility and abrasion resistance for plastics.	2	2	4	2	4
Excellent exterior durability and high flexibility. Excellent chemical and high scratch resistance.	3	2	3	4	2
Excellent outdoor durability with high surface hardness.	2	3	2	4	3
Excellent exterior durability and toughness. Non-yellowing.	2	2	3	2	3
Good flexibility and toughness. Good abrasion resistance and non-yellowing.	2	3	3	3	3
Excellent curing speed with good solvent resistant. Good flexibility and abrasion resistance.	3	3	3	3	2
Excellent abrasion resistance, toughness and superior stain resistance.	2	2	3	2	2
Good abrasion resistance and good toughness.	4	4	1	4	1
High hardness. Very good scratch resistance with less yellowing.	4	4	1	4	1
Recommended for topcoat on vacuum metalized layer. Good outdoor and yellowing resistance with good flexibility.	1	2	4	2	4
Good outdoor and yellowing resistance. Good reactivity and abrasion resistance with processability for spray.	3	3	3	2	4

18 Product Range (continued)

Epoxy acrylates

Epoxy acrylates are typically characterized by very fast cure, good hardness, excellent

chemical resistance, high viscosity and high gloss.

Products	Dilution	Viscosity	Colour	Density	Acid value	Molecular weight	Functionality
EBECRYL™ 600*	-	3000 [▲]	2	1, 13	2	500	2
EBECRYL 605	25 TPGDA	7500	2	1, 17	2	500	2
EBECRYL 648	25 OTA 480	47500	3	1, 14	2	500	2
EBECRYL 1608	20 OTA 480	1000 [▲]	2	1, 17	2	900	2
EBECRYL 3105	-	600 [▲]	5	1, 18	5	900	2
EBECRYL 3300	35 DPGDA	1100	3	1, 12	1.5	550	2
EBECRYL 3416	35 TPGDA	18000 (+)	15	1, 15	8	1900	4
EBECRYL 3500	-	1500 [▲]	5	1, 18	5	750	2
EBECRYL 3608	15 OTA 480	1000 [▲]	2	1, 14	2	550	2
EBECRYL 3700	-	4300 [▲]	4	1, 13	2	500	2
EBECRYL 3701	-	7000 [▲]	6	1, 14	5	850	2
EBECRYL 3702	-	3800 [▲]	6	1, 14	3	500	2
EBECRYL 3703	-	4250	5	1, 17	5	850	2
EBECRYL 3708	-	3500 [▲]	4	1, 16	1	1500	2
EBECRYL 3740-TP20	20 TPGDA	800 [▲]	2	1, 16	1.6	500	2
EBECRYL 6040	-	25000	2	1, 14	2	500	2
EBECRYL 9626	37 TMPTA	38000	5	1, 17	2	900	3
EBECRYL 9636	37 TMPTA	28000	5	1, 17	2	900	3
EBECRYL 9656	50 TMPTA	45000	7	1, 18	5	1000	3

Acrylic acrylates

Acrylic acrylates provide excellent adhesion to various substrates with moderate cure speed and moderate to good flexibility. They are characterized by low shrinkage and can give

excellent weatherability to coating. They also have good pigment wetting characteristics and can be used as dispensing resins. These oligomers are easy to matt.

Products	Dilution	Viscosity	Colour	Density	Acid value	Molecular weight	Functionality
EBECRYL 740-40 TP	40 TPGDA	8500 [▲]	3	1, 05	-	-	-
EBECRYL 741	45 HDDA	4500	4	1, 05	-	-	-
EBECRYL 745	25 TPGDA, 25 HDDA	20000	3	1, 05	-	-	-
EBECRYL 767	30 IBOA	8500 [▲]	3	1, 08	-	-	-
EBECRYL 1200	45 BuAc	3000 [▲]	5	1, 07	-	> 10000	10
EBECRYL 1710	40 HDDA	26000	1	-	-	> 10000	-

*EBECRYL™ UV curable resins and diluting oligomers

Key features	Reactivity	Hardness	Flexibility	Chemical resistance	Adhesion
General purpose epoxy acrylate resin.	3	4	1	4	1
General purpose epoxy acrylate resin and better gloss.	2	2	2	2	2
Excellent inorganic pigment wetting. Fast cure, high gloss. Excellent solvent and good water resistance.	3	3	1	3	2
Deodorized product for printing inks and high gloss.	3	3	1	3	2
Excellent adhesion to wood.	1	2	4	2	4
Good adhesion to metal. Good flexibility. Good chemical and corrosion resistance.	2	3	2	4	3
Reactivity, hardness and corrosion resistance.	4	3	1	4	2
Low viscosity version of EBECRYL 3701. Good flexibility and toughness. Excellent adhesion on wood.	2	2	4	2	4
Fatty acid modified epoxy acrylate.	3	3	2	2	2
Improved adhesion when used with isocyanates.	3	4	1	4	3
Good adhesion to plastic substrates.	2	2	4	2	4
Fatty acid modified epoxy acrylate. Good flow and leveling.	2	2	3	3	3
Enhanced adhesion to plastic substrates. Fast UV cure response.	4	4	4	3	4
High flexibility, elongation and impact resistance.	2	3	4	3	4
Good adhesion on polar plastic substrates.	4	3	2	4	3
Low viscosity, good flow.	3	3	1	3	2
Epoxy novolac with high reactivity and hardness. Good heat resistance and adhesion with low shrinkage.	4	4	2	3	2
Epoxy novolac acrylate. High surface hardness with good heat resistance. Low shrinkage with good adhesion on metal.	4	3	2	3	2
Epoxy cresol novolac acrylate with high reactivity and hardness. Good heat resistance.	4	3	2	3	2

Key features	Reactivity	Hardness	Flexibility	Chemical resistance	Adhesion
Excellent primer for difficult substrates. High flexibility.	1	1	3	1	4
Good adhesion on treated plastics. Good substrate wetting.	1	1	2	1	4
Excellent primer for difficult substrates. Good pigment wetting & high flexibility.	1	1	3	1	4
Excellent primer for difficult substrates, with improved cure speed.	1	1	4	1	4
Physically drying. Suitable for exterior applications, hard coatings.	3	3	3	3	3
Good adhesion combined with good reactivity.	2	3	2	2	4

Polyether and polyesters acrylates

Polyether acrylates are known for their low viscosity and good reactivity. They exhibit a good compromise of properties and low shrinkage. Polyesters acrylates cover a wide

range of viscosities (low to high) and cure speeds and they also show moderate to high shrinkage. Diluted polyester resins are recommended for adhesion on difficult substrates.

Polyether acrylates

Products	Dilution	Viscosity	Colour	Density	Acid value	Molecular weight	Functionality
EBECRYL™ 80*	-	3000	200 A	1, 11	-	1000	4
EBECRYL 81	-	100	2	1, 08	-	600	2,5
EBECRYL 83	-	500	2	1, 11	-	1000	3,5
EBECRYL 84	-	5000	5	1, 13	-	300	2,5
EBECRYL 841	-	600	200 A	1, 10	-	-	3,5
EBECRYL 880	-	24	1	1, 04	-	-	-

Polyesters acrylates

EBECRYL 436	40 TMPTA	1500 [^]	5	1, 28	25	-	-
EBECRYL 438	40 OTA 480	1500 [^]	5	1, 26	25	-	-
EBECRYL 446	40 OTA 480	1500 [^]	5	1, 26	25	-	-
EBECRYL 524	30 HDDA	60000	250 A	1, 22	-	1000	-
EBECRYL 525	40 TPGDA	40000	200 A	1, 21	25 [⊕]	-	-
EBECRYL 584	40 HDDA	2000	3	1, 32	25	-	-
EBECRYL 770	40 HEMA	100	200 A	1, 17	120 [⊕]	-	1
EBECRYL 800	-	14000	2	1, 15	20	780	4
EBECRYL 810	-	500	2	1, 09	25	1000	4
EBECRYL 830	-	50000	3	1, 18	30	1500	6
EBECRYL 837	-	800	3	1, 14	-	2700	6
EBECRYL 851	-	3250	3	1, 12	-	-	2.5
EBECRYL 852	-	110	2	1, 06	-	-	3
EBECRYL 853	-	80	200	1, 10	-	470	3
EBECRYL 884	-	25000	5	1, 19	-	3000	3
EBECRYL 885	-	34000	5	1, 19	-	6000	3
EBECRYL 888	-	3400	3	1, 19	-	-	3
IRR 608	30 EB114	21000	5	1, 17	-	2900	2

*EBECRYL™ UV curable resins and diluting oligomers



Key features	Reactivity	Hardness	Flexibility	Chemical resistance	Adhesion
Provides excellent reactivity in a formulation.	4	2	3	2	3
Good reactivity combined with good diluting power.	2	3	2	2	2
Very good reactivity, low residual odor.	3	3	2	3	2
Very good reactivity.	3	3	2	3	2
Very good reactivity, low viscosity.	3	3	2	3	2
Good scratch resistance, sprayable.	2	3	2	2	2

Chlorinated polyester resin. Primer for metal and plastic. Fast curing.	1	2	2	1	4
Chlorinated polyester resin. Primer for metal and plastic.	1	1	3	1	4
Chlorinated polyester resin. Primer for metal and plastic. Flexible.	1	1	3	1	4
Used as adhesion primer and binder on difficult substrates.	1	3	3	1	3
Used as adhesion primer and binder on difficult substrates.	1	2	3	1	3
Chlorinated polyester resin. Good adhesion to plastics.	4	4	1	4	4
Acid functional, alkali strippable adhesion on metal.	1	4	1	4	4
General purpose – low viscosity polyester acrylate.	2	3	2	4	3
Reactive diluting resin. Suitable for white pigmented systems.	2	2	2	3	1
Very good reactivity and scratch resistance.	3	4	1	4	1
Low viscous and high reactivity. High hardness and chemical resistance with excellent scratch resistance.	3	4	1	4	1
Xi free binder for wood coating.	2	3	2	3	2
Xi free binder for wood coating.	1	2	3	2	3
Good cure response, flexibility, low odour and low extractibles.	3	2	4	2	3
Excellent flexibility and abrasion resistance for furniture and parquet floor.	3	3	3	3	2
Excellent flexibility and abrasion resistance for furniture and parquet floor.	3	3	3	3	3
Excellent adhesion, good abrasion resistance and high flexibility. Good ink receptivity and prevent plasticizer migration.	2	2	3	2	3
High flexibility. Good adhesion to metal and good corrosion resistance.	1	2	3	2	3

RAYLOK™ UV curable engineered resins

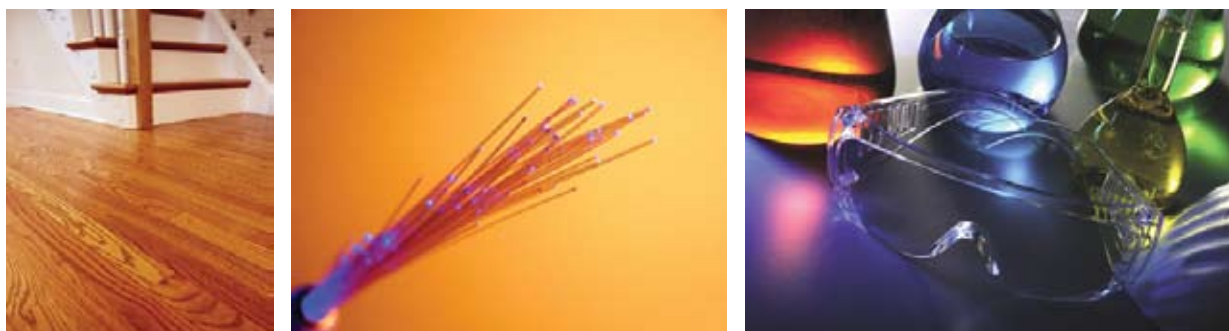
RAYLOK 1621 and RAYLOK 1622 are acrylated materials chemically modified with oils of natural origin. Both when used in primer and topcoat formulations will provide the natural wood finish of the traditional oil products.

RAYLOK 1721 and RAYLOK 1722 were binders containing halogen-free flame retardant functionalities covalently bound to the polymer backbone. It gives flame retardant properties

and meets parquet coating requirement such as abrasion, scratch, solvent and chemical resistance.

RAYLOK 5021 and RAYLOK 5022 are especially developed for sleeving glass-fiber tubes used in the automotive industry. They both combine the necessary high level mechanical properties and fast production speed.

Products	Product description	Viscosity	Colour	Density	Molecular weight
RAYLOK 1621	Oil modified acrylate	520	7	1, 06	-
RAYLOK 1622	Oil modified acrylate	520	7	0, 98	-
RAYLOK 1721	Phosphorus based acrylated oligomer in 25 parts water	3300	8	1, 19	3000
RAYLOK 1722	Phosphorus based acrylated oligomer	7100 [▲]	2,5	1, 10	3000
RAYLOK 5021	Special aromatic urethane acrylate in 12% DPGDA	12500 [▲]	2	1, 14	-
RAYLOK 5022	Special aromatic urethane acrylate in 12% DPGDA	8000 [▲]	2	1, 14	-



Functionality	Key features
2 + 1	Oil modified binder with good wood wetting, adhesion and dual cure (UV curing and air drying).
3	Oil modified binder, dual cure and suitable for topcoat.
2	Halogen-free flame retardant oligomer, excellent in primers, superior clarity of the cured film.
2	Halogen-free flame retardant oligomer, used in intermediate coats, superior clarity of the cured film.
-	Excellent flexibility, electrical and thermal insulating properties, specially suited for electrical sleeves coatings.
-	Excellent flexibility, electrical and thermal insulating properties, specially suited for electrical sleeves coatings.

Diluting acrylates

As RADCURE™ resin formulations are normally solvent-free, diluting acrylates are added to reduce the viscosity for better processing and to improve crosslinking.

Reactivity, mechanical and chemical resistance and shrinkage will increase with the increasing functionality of the diluting acrylate, while flexibility and adhesion will decrease.

Monofunctional

Products	Product description	Viscosity	Colour	Density	Acid value
EBECRYL™ 110*	Oxyethylated phenol acrylate	20	5	1, 12	1
EBECRYL 113	Monofunctional epoxy acrylate	120	3	0, 97	-
EBECRYL 114	Phenoxyethyl acrylate	10	200 A	1, 10	1
EBECRYL CL 1039	Urethane monoacrylate	25	100 A	1, 07	-
IBOA	Isobornyl acrylate	9	100 A	0, 98	1
ODA	Octyl/decyl acrylate	3	3	0, 88	1

Difunctional

EBECRYL 109	Acrylate / methacrylate diluent	12	50 A	1, 08	-
EBECRYL 130	Tricyclodecanediol diacrylate	160	4	1, 01	-
EBECRYL 145	Propoxylated neopentyl glycol diacrylate	20	2	1, 01	-
EBECRYL 150	Bisphenol A derivative diacrylate resin	1400	2	1, 14	5
DPGDA	Dipropylene glycol diacrylate	10	150 A	1, 06	1
HDDA	1,6-Hexanediol diacrylate	10	40 A	1, 03	1
TPGDA	Tripropylene glycol diacrylate	15	50 A	1, 05	1

Trifunctional

EBECRYL 853	Polyester acrylate	80	200 A	1, 10	
EBECRYL 2047	Polyester acrylate	400	3	1, 09	15
OTA 480	Acrylated glycerol derivative	90	60 A	1, 08	1
TMPEOTA	Trimethylolpropane ethoxy triacrylate	80	200 A	1, 09	1
TMPTA	Trimethylolpropane triacrylate	115	50 A	1, 11	1

Tetrafunctional and Hexafunctional

EBECRYL 40	Polyether tetraacrylate	160	2	1, 15	-
EBECRYL 140	Polyester acrylate	1000	400 A	1, 1	110
EBECRYL 892	Polyester acrylate	140	2	1, 15	-
DPHA	Dipentaerythritol penta/hexaacrylate	16000	3	1, 18	10
PETIA	Mixture of pentaerythritol tri- and tetraacrylate	1100	200 A	1, 18	10
PETRA	Pentaerythritol tri- and tetraacrylate	850	75 A	1, 18	1

* EBECRYL™ UV curable resins and diluting oligomers



Key features	Reactivity	Hardness	Flexibility	Chemical resistance	Adhesion
Low odour monoacrylate; good adhesion onto non-polar substrates.	1	2	4	2	4
Low irradiation, xi free, low odour.	1	2	2	2	3
Excellent adhesion to plastics and metal.	1	2	4	2	4
Best compromise for a monofunctional diluent.	1	2	4	2	4
High Tg.	1	2	3	3	4
Good adhesion on non-polar substrates.	1	1	4	1	4
Improved chemical and thermal resistance.	2	2	2	3	3
High reactive diluting oligomer characterised by high Tg and low shrinkage.	2	3	2	3	4
Aliphatic di-functional acrylate of low surface tension.	2	2	3	2	3
Low irretant, high reactive diluting acrylated resin.	4	3	2	3	2
Good cure speed and flexibility.	2	2	2	2	3
High diluting power, good weathering properties.	2	2	2	3	3
Good cure speed and flexibility.	2	2	2	2	3
Low viscous trifunctional polyester acrylate having low irritation, low odour and good flexibility.	3	3	4	3	3
Reactive diluting resin.	3	2	4	2	3
Good compromise of properties, good pigment wetting.	3	3	2	3	2
Good compromise of properties.	3	3	2	3	2
Good surface cure and scratch resistance.	4	4	1	4	1
Low shrinkage.	2	2	3	3	3
Good reactivity and hardness.	3	3	2	3	2
Low viscosity. Good reactivity and solvent resistance with high hardness.	3	3	1	3	2
Very good scratch resistance.	4	4	1	4	1
High degree of crosslinking.	4	4	1	4	1
High degree of crosslinking. Low viscous and colour.	4	4	1	4	1

26 Product Range (continued)

Additives and Stabilizers

Reactive additives were specifically developed for radiation curing applications to give specific characteristics (adhesion, wetting, leveling, slip, co-initiator etc) while becoming part of the network after curing.

Cytec provides ADDITOL™ stabilizers for clear and pigmented coatings. The products are commonly used to improve long term stability of clear and pigmented systems.

Products	Product description	Viscosity mPa.s(°C)	Density g/cm ³	AV mg KOH/g	Colour Gardner	Addition level %
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Stabilizers

ADDITOL S110	In-can stabilizer	450 (60)	-	-	Dark brown	1 - 3
ADDITOL S120	In-can stabilizer	100 (25)	-	-	Pale	1 - 2
ADDITOL S130	In-can stabilizer	100 (25)	-	-	Pale	1 - 2

Adhesion promoters

EBECRYL™ 168*	Methacrylated acidic compound	1350 (25)	1.28	290	3	1 - 5
EBECRYL 170	Acrylated acidic compound	3000 (25)	1.33	300	6	5 - 8
EBECRYL 171	Methacrylated acidic compound	1200 (25)	-	320	3	5 - 8
EBECRYL 375	Tetramercapto derivatire	500	-	-	2	1 - 5

Amine functional acrylate co-initiators

EBECRYL 7100	Amine functional acrylate co-initiator	1000 (25)	1.10	-	4	10 - 15
EBECRYL P115	Tertiary amine co-initiator	20 (25)	0.99	-	2	5 - 8
EBECRYL P116	Amine functional acrylate co-initiator	20 (25)	0.99	-	2	5 - 10

Flow and leveling agents

EBECRYL 350	Silicone diacrylate	350 (25)	1.05	7	10	0.5 - 2
EBECRYL 1360	Silicone hexaacrylate	2100 (25)	1.11	25	10	0.5 - 2
MODAFLOW™ 2100*	Defoaming agent	8000 (25)	1.01	-	Pale	0.5 - 2
MODAFLOW 9200	Silicone free leveling agent	4000 (25)	-	-	Pale	0.5 - 2

Miscellaneous

EBECRYL 341	Silicone free slip agent	Paste	-	-	White	2 - 5
EBECRYL 342	Polyether modified silicone	-	-	-	-	0.2 - 2

Waterbased

Products	Chemical description	Main Application	Solid%	viscosity mPa.s @ 25C	Co-solvent	Xi-lable
UCECOAT™ 8326*	Silicone free anti-foam agent	Additive	100	200	none	yes
UCECOAT 8399	Silicone free defoamer	Additive	100	20	none	yes
UCECOAT 8460	Polyurethane thickener solution in water	Additive	30	ca 10 000	yes	yes
UCECOAT 8488	Polyurethane thickener solution in water	Additive	35	ca 3000	yes	yes

* EBECRYL™ UV curable resins and diluting oligomers

* MODAFLOW™ flow modifiers

* UCECOAT™ waterbased UV curable resins



Key features

Suitable for grinding and in-can stabilisation of pigmented systems. No negative impact on reactivity.

Universal use, for grinding and in-can stabilisation of pigmented systems and clear coatings. No negative impact on reactivity.

In-can stabilisation of pigmented systems and clear coatings, including metallic pigments.

Adhesion promoter for metals and glass.

Adhesion promoter for metals.

Adhesion promoter for metals, glass and plastic.

Adhesion promoter for coating on metal. Excellent flexibilizer.

Highly efficient co-initiator. Excellent adhesion to plastic substrates. Nitrogen content: 3.5%. Can be used as a resin.

Highly efficient co-initiator. Nitrogen content: 4.9%.

EBECRYL P115 made with a cleaner process.

Copolymerisable, substrate wetting and slip additive.

Copolymerisable, substrate wetting and slip additive. Recommended for EBECRYL applications.

Silicone free, substrate wetting and slip additive. Medium compatibility and good defoamer.

Silicone free leveling agent with excellent compatibility.

Silicone free slip additive that allows overprintability.

High effective leveling agent for spray application, mist absorption, prevent orange peel, no foam stabilization.

Product feature

Degassing agent for water based UV and UV-PUD systems. Ideally to be used in combination with UCECOAT 8399.

Defoamer especially designed for water based UV systems and UV-PUD's.

Easy to incorporate rheology and flow modifier for water based UV system and UV-PUD's, for medium to high stress application.

Highly effective (at low and medium shear stress) rheology and flow modifier for water based UV system and UV-PUD's. Prevents sedimentation and sagging.

28 Product Range (continued)

Photoinitiators

Our ADDITOL™ product range includes the most commonly used photoinitiators. The table below shows the typical application areas for each of the ADDITOL photoinitiators.

		State (Solid/Liquid)	Clear - Wood	Pigmented - Wood	Clear - Plastics/Metal	Pigmented plastics/Metal	Over Print Varnish	Inks	Non Yellowing	Synergist Needed	Remarks
ADDITOL BCPK	Blend of Benzophenone & CPK 50:50	L	X	O	X	O	X	O		X	Multipurpose photoinitiator, good surface cure with amine synergist.
ADDITOL BDK	2,2-dimethoxy-1,2-diphenylethan-1-one	S	X	O	X	O	O	O			Multipurpose photoinitiator.
ADDITOL BP	Benzophenone	S	X	O	X	O	X	O		X	Multipurpose photoinitiator, good surface cure with amine synergist.
ADDITOL CPK	1-hydroxy-cyclohexylphenylketone	S	X	O	X	O	X		X		Non yellowing systems.
ADDITOL DMMTA	2-menthyl-1-[4-(methylthio)phenyl] 2-morpholino-propane-1-one	S		X		X		X			Curing of pigmented systems (other than white).
ADDITOL HDMAP	2-hydroxy-2-methyl-1-phenyl propanone	L	X	O	X	O	O	O	O		Multipurpose photoinitiator.
ADDITOL ITX	Isopropyl thioxanthone (2 and 4 isomer mixture)	S		X		X		X		X	Curing of pigmented systems (other than white).
ADDITOL MBF	Methylbenzoylformate	L	X	O	X	O	O	O	O		Low odour Multipurpose photoinitiator.
ADDITOL PBZ	Phenyl Benzophenone	S	X	O	X	O	X	O		X	Low odour photoinitiator, good surface cure with amine synergist.
ADDITOL TPO	2,4,6-trimethylbenzoyl diphenyl phosphine oxide	S		X	X	X		O	X		Efficient cure of white pigmented and thick clear coatings.
ADDITOL EHA	2-ethylhexyl-4-dimethylamino benzoate	L		O		O		X			Amine synergist, mainly for ink.
ADDITOL EPD	Ethyl-4-(dimethylamino) benzoate	S		O		O		X			Amine synergist, mainly for ink.

X = highly recommended, O = used in combination, S = solid, L = Liquid, International version



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* ADDITOL™ additives

* EBECRYL™ UV curable resins and diluting oligomers

* MODAFLOW™ flow modifiers

* RAYLOK™ UV curable engineered resins

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*RAYLOK™ UV curable engineered resins

*UCECOAT™ waterbased UV curable resins



Industrial applications

Abbreviations

PC:	polycarbonate
PE:	polyethylene
PP:	polypropylene
PMMA:	polymethylmethacrylate
PVC:	polyvinylchloride
ABS:	acrylonitrile butadiene styrene
PS:	polystyrene
PET:	polyethylene terephthalate
SMC:	sheet moulded compound
BMC:	blow moulded compound

●	= low
●●	= moderate
●●●	= good
●●●●	= very good

Product range

Key to the table

Acid value	expressed in mg KOH per g. Data are maximum values except values indicated with (☉) which are mean values.
Colour	data are maximum values expressed in Gardner. Where specified (A), the maximum color value is expressed in APHA units.
Density	expressed in g per cm ³ .
Dilution	parts of diluent in 100 parts of product.
Funct.	functionality, expressed as number of acrylic double bonds per molecule.
Particle size	expressed in nm.
pH	measured using a conventional glass electrode equipment.
Solid content	measured by gravimetry and expressed as the percentage of solid residue remaining after complete drying of the waterborne dispersion for 2 hours at 120°C.
Viscosity	Höppler viscosity at 25°C. Where specified (▲) Höppler viscosity at 60°C. Where specified (B) Brookfield (max value) viscosity at 25°C. Where specified (+) Dynamic viscosity (DIN EN ISO 3219, 20 1/s). Data are mean values expressed in mPa.S at 25°C or 60°C.
Xi-label	a no in this column indicates the product does not require to be labelled as an irritant (Xi) in accordance with the European Commission Directives 67/548/EEC, 1999/45/EC and their respective amendments and adaptations to technical progress published before April 2005. For a more detailed regulatory information, please consult the Safety Data Sheet.

Abbreviations

BuAc	Butyl acetate
DPGDA	Dipropylene glycol diacrylate
HDDA	1,6-Hexanediol diacrylate
HEMA	Hydroxy ethyl methacrylate
HPMA	Hydroxy propyl methacrylate
IBOA	Isobornyl acrylate
PEA	Phenoxy ethyl acrylate
TMPFA	Trimethylolpropane formal acrylate
TPGDA	Tripropylene glycol diacrylate

1	= low
2	= moderate
3	= good
4	= very good

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