

CYTEC

Surface Specialties



Liquid Coatings Resins

Product Guide

Latin America

Cytec Surface Specialties manufactures and markets a broad range of technically innovative products for applications in key coating markets such as industrial, wood and paper, graphics, adhesives and opto-electronics.

A leader in environmentally-friendly coating technologies, we are a total solution provider – offering an extensive range of high-performance products, supported to a high level of technical expertise.

Product Range

Cytec Surface Specialties offers a comprehensive product range, including many cutting-edge technologies that have earned leading positions in their target markets. These are divided into three main groups:

- Liquid Coating Resins and Additives
- Radcure and Powder Resins
- Adhesives, Bonding and Formulations

Cytec Surface Specialties leads in

- UV/EB curable systems
- Powder coating resins
- Waterborne alkyds
- Waterborne epoxies
- Waterborne resin systems in primer surfacer, base and clear coats for auto OEMs

Global Presence

Headquartered in Brussels (Belgium), Cytec Surface Specialties operates ISO-certified manufacturing facilities and distribution centers worldwide.

Our ten technology centers – located in Europe, Asia and North America – offer customers ready access to world-class technical support and applications research.

We have sales offices in more than 30 countries across the globe, to provide responsive service – focused on helping customers identify and capture their emerging opportunities in the marketplace.

Cytec Industries Inc.

Cytec Industries is a specialty chemicals and materials technology company with sales of about \$ 3 billion. Its growth strategies are based on developing technologically advanced customer solutions for global markets including: aerospace, coatings, mining, plastics and water treatment.



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In addition to the broad range of liquid coating resins described in this brochure, **Surface Specialties** has an extensive range of other ingredients for formulating high performance coating systems. Please refer to our other brochure on amino crosslinkers.

Additives

Surface Specialties offers a broad range of specialty resins and additives to the coatings market. Our portfolio includes additives for solventborne, high solids, waterborne and powder coating systems. Additives play a key role in developing high performance coatings for automotive, architectural, industrial and specialty coating segments.

- *Modaflow*TM and *Multiflow*TM flow modifier and defoamer resins
- *Additol*TM additives for flow and leveling, defoaming, wetting and pigment dispersing
- *Modacure*TM cure enhancing additive for thermoset coatings

Solvents

Surface Specialties *Santosol*TM family of environmentally-friendly dimethyl ester solvents are used as high-boiling tail solvents in coil and container coatings and as ingredients in paint strippers and industrial cleaners.

4 | Nomenclature and Trade Names

Trade names	Nomenclature	
Beckopox™	EH, VEH EP, VEP EM, VEM	Solvent-borne and water-borne hardeners for epoxy resins Solvent-borne and water-borne epoxy resins Solvent-borne and water-borne modified epoxy resins
Daotan™	VTW, TW	Water-borne polyurethane dispersions (physically drying/self-crosslinking/carboxyl and hydroxyl functional)
Duroftal™	VPI VPE	Solvent-borne hydroxylated polyesters for isocyanate crosslinking Solvent-borne hydroxylated polyesters for amino resin crosslinking
Duroxyn™	EF, VEF	Solvent-borne and water-borne epoxy ester resins
Macrynal™	SM, VSM	Solvent-borne and water-borne acrylic polyols for isocyanate crosslinking
Phenodur™	PR, VPR, VPW	Solvent-borne and water-borne phenolic resins
Resydrol™	AF, VAF	Solvent-borne and water-borne fatty acid modified alkyd resins
Vialkyd™	AL, VAL AM, VAM AN, VAN AS, VAS AX, VAX AY, VAY AZ, VAZ	Solvent-borne and water-borne linseed oil modified alkyd resins Solvent-borne and water-borne mixed fatty acid/oil modified alkyd resins Solvent-borne and water-borne polyester resins for baking systems Solvent-borne and water-borne sunfloweroil modified alkyd resins Water-borne modified epoxy alkyd resins Water-borne modified acrylic alkyd resins Water-borne modified urethane alkyd resins
Viacryl™	SC, VSC	Solvent-borne and water-borne physically drying/self-crosslinking and baking acrylic resins

Key words	Abbreviation
ABS	Acrylonitrile butadiene styrene
Ac	Acetone
Aro 100	Aromatic 100
Aro 150	Aromatic 150
AV	Acid value
BA	Butyl acrylate
BDG	Dibutoxyethanol
BG	Butyl glycol
BP	Butoxy propanol
BuAc	Butyl Acetate
CED	Cathodic electrodeposition
DACA	Diacetone alcohol
DBGE	Dipropylene glycol methylether
DGDDA	Dipropylene glycol diacrylate
DIY	Do It Yourself
DMEA	Dimethylethanol amine
DTM	Direct to metal
EDG	Ethylene diglycol
EEP	Ethoxy ethoxy propanol
EG	Ethylene glycol
EP	Ethoxy-propanol
EPAC	Ethoxy propyl acetate
EtAc	Ethyl acetate
HDDA	Hexanediol diacrylate
HEW	Hydrogen equivalent weight
HPMA	Hydroxypropyl methacrylate
IP	Isopropanol
Iso H	Isopar H
Isobut	Isobutanol
MB	Methoxy butanol
MeAc	Methyl acetate

Key words	Abbreviation
MFFT	Minimum film formation temperature
MMA	Methyl methacrylate
MP	Methoxy propanol
MPAC	Methoxy propyl acetate
MPP	Methoxy-propoxy propanol
n-BuAc	Butyl acetate
n-But	n-Butanol
NH ₃	Ammonia
NMP	n-methyl-pyrrolidone
OH	Hydroxyl number
PA	Polyamide
PC	Polycarbonate
PMA	Propoxy methyl acetate
PMMA	Polymethyl methacrylate
PP flamed	Polypropylene flamed treated
PS	Polystyrene
PVC	Polyvinyl chloride
SCA	Sag control agent
Tol	Toluene
TEA	Triethylamine
Tg	Glass transition temperature
TMPFA	Trimethylolpropane formalacrylate
TPGDA	Tripropylene glycol diacrylate
WA	Water
Xyl	Xylene

Beckpox™ Anime Hardeners for Epoxy Resins and Dispersions

Product	Type	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	HEW (H) on F O D	Amine value
<i>EH 613w/80WA</i>	Aliphatic polyamine adduct	80	Water	23000 - 31000	145	230
<i>EH 623w/80WA</i>	Aliphatic polyamine adduct	80	Water	12000 - 21000	200	210
<i>EH 625</i>	Mannich-based aliphatic polyamine adduct	100		900 - 1400	73	415
<i>EH 628</i>	Mannich-based aliphatic polyamine	100		480 - 720	75	370
<i>EH 629</i>	Mannich-based aliphatic polyamine adduct	100		2500 - 4400	70	470
<i>EH 637</i>	Cycloaliphatic polyamine adduct	100		90 - 120	100	325
<i>EH 659w/50WA</i>	Polyamidoamine	50	Water	17000 - 27000	215	160
<i>VEH 2106w/80WA</i>	Aliphatic polyamine adduct	80	Water	14000 - 25000	142	230
<i>VEH 2188w/55WA</i>	Aliphatic polyamine adduct	55	Water/ Proxyethanol	6000 - 14000	380	135
<i>VEH 2626</i>	Mannich-based aliphatic polyamine adduct	100		1100 - 1700	73	420
<i>VEH 2849w/80WA</i>	Aliphatic polyamine adduct	80	Water	18000 - 25000	134	255

	Iodine Color	Low temperature cure	High reactivity	Low reactivity	Pigment wetting	Flexibility	Shear stable	Impact	Adhesion	Chemical resistance	Water resistance	Low yellowing	Low viscosity	Corrosion resistance	Concrete sealer	Concrete primer	Concrete topcoat	Metal primer	Aluminium primer	Pipe coatings	Mastic/Trowel	Low color	Container	Tank liner	Packaging
10		●		●		●			●	●	●			●	●	●	●	●							
20			●	●	●	●	●	●	●						●	●	●								
3	●	●					●		●	●	●			●	●	●	●			●		●	●	●	
<=5	●	●							●	●	●			●	●	●	●	●	●	●	●				
5	●	●					●		●	●	●			●	●		●	●		●			●	●	
2			●				●		●			●	●	●	●	●	●	●		●		●	●	●	
70			●	●	●	●	●		●					●	●	●	●	●							
20		●		●			●		●					●											
25			●		●				●					●	●	●	●	●							
300	●	●					●		●	●	●			●	●	●		●							
<=10				●			●		●																

Beckpox™ Solvent-borne Epoxy Resins and Water-borne Epoxy Dispersions

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	EEW on FOD	Chemical resistance	Corrosion resistance	Adhesion to concrete	Shear stable	Adhesion to metal	Solvent free	Flexibility	Abrasion resistance	Concrete sealer	Concrete primer	Concrete topcoat
<i>EM 385w/56WA</i>	56	Water/IP	450 - 1100	850 - 930	●	●			●		●				
<i>EM 438/50EEP</i>	50	EEP	2200 - 4500	N.A.	●	●		●	●		●				
<i>EM 440/20LG</i>	20	LG	10 - 20			●			●		●				
<i>EM 441/60LG</i>	60		13000 - 22000	N.A.	●	●		●	●		●				
<i>EM 444/50 EEP</i>	50	EEP	550 - 1000	N.A.	●	●		●	●		●				
<i>EM 460/60IBX</i>	60	Xyl, IB	800 - 1400	N.A.			●	●	●						
<i>EM 524/60LG</i>	60	LG	3800 - 5800	N.A.	●	●			●		●				
<i>EP 116</i>	100		7800 - 11000	175 - 185	●					●		●			
<i>EP 117</i>	100		800 - 1200	175 - 185	●		●			●			●	●	●
<i>EP 122w</i>	100		700 - 900	190 - 200			●	●		●			●	●	●
<i>EP 128</i>	100		900 - 1300	190 - 200	●	●	●	●	●	●		●	●	●	●
<i>EP 140</i>	100		11000 - 15500	180 - 190	●	●	●	●	●	●		●	●	●	●
<i>EP 147w</i>	100		9000 - 13000	188 - 200						●		●	●	●	●
<i>EP 301/75X</i>	75	xyl	7800 - 13000*	450 - 525	●	●		●	●						
<i>EP 304</i>	100		650 - 1000*	875 - 1000		●		●	●		●				
<i>EP 307</i>	100		2000 - 3100*	1400 - 1900		●		●	●		●				
<i>EP 309</i>	100		3400 - 12000*	2400 - 3500		●		●	●		●				
<i>EP 384w/53WA</i>	53	Water/MP	400 - 750	980		●	●	●	●			●			
<i>EP 384w/53WAMP</i>	53	Water/MP	400 - 750	980		●	●	●	●			●			
<i>EP 401/50LG</i>	50	LG	23000 - 35000	N.A.	●	●			●		●				
<i>VEP 2381w/55WA</i>	55	Water/EP	7000 - 12000	910		●	●	●	●			●	●		●
<i>VEP 2382w/55WA</i>	55	Water/MP	7000 - 12000	910		●		●	●		●		●		●
<i>VEP 2387w/55WAPE</i>	55	Water/PE	4000 - 9000	2700 - 3600		●			●		●				
<i>VEP 2390w/75MP</i>	75	MP	3000 - 6000	655					●		●				

* diluted at 40% in BG

N.A.: non applicable

Duroftal™ Solvent-borne Hydroxylated Polyesters

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	OH number on solid resin	Aliphatic structure	AV on solid resin	Structure	FDA 175.300	High solids	Flexibility	Hardness	Interior	Exterior	Yellowing resistance	Wedgebend
VPI 2801/78BAC	78	n-BuAc	4000 - 17000	220	yes	22	B		yes	●	●	●	●	●	●
VPI 2803/78BAC	78	n-BuAc	7000 - 19000	180	yes	22	B		yes	●		●		●	
VPE 6104/60MPAC	60	MPAC	4000 - 8000	60	no	8 max	SB	●	no	●		●	●	●	●
VPE 6128/60SNABG	70	Aro 150/BG	1500-3000	60	no	8 - 12	L		yes	●		●	●		●

L = Linear B = Branched SB = Slightly Branched

Duroxyn™ Solvent-borne and Water-borne Epoxy Ester Resins

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	Iodine color	AV on solid resin	pH at 10% in water	Oil length %	Oxidative drying	Adhesion to metal	Flexibility	Corrosion Resistance	High stability in water	Fast drying time
EF 900/60X	60	Xylene	3000 - 4500	< = 8	< 3	N.A.	42	●	●	●	●		
VEF 2406w/45WA	45	Water	100 - 2000	opaque	N.A.	4 - 6	N.A.				●	●	●
VAX 6127w/42WA	42	Water/MB	500 - 3000	Beige opaque	N.A.	8.5 - 10.0	38	●	●	●	●	●	●

N.A. = non applicable

Hostaflex™ - PVC Resins

Product	Type	K-Value DIN EN ISO 1628-2	Chlorine content
CM 131	Terpolymer based on vinyl chloride (84%), vinyl acetate (15%) and dicarbonic acid (1%)	45	
CM 133	Terpolymer based on vinyl chloride (84%), vinyl acetate (15%) and dicarbonic acid (1%)	48	
CM 150	Copolymer based on vinyl chloride and vinyl acetate	50	
CM 158	Copolymer based on vinyl chloride and acrylic acid ester with reactive hydroxyl group	48	
CM 630	PVC-copolymer, based on vinyl chloride / isobutyl ether, medium viscosity	35	
CM 640	PVC-copolymer, based on vinyl chloride / isobutyl ether high viscosity	35	

Solvent-borne resins

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	Color scale	OH content on solid resin %	OH number on solid resin	OH equivalent on solid resin	Fast drying	Fast initial hardness development	Sandability	Hardness	Flow and leveling	Flexibility
SM 510n/60LG	60	n-BuAc/ Aro 100/ Xyl	2400 - 3600	80 max	4.5	150	378	●		●	●	●	●
SM 510n/65BACX	65	Xyl/ BuAc	3500 - 7000	200 max	4.5	150	378	●		●	●	●	●
SM 513/60LG	60	n-BuAc/ Aro 100/ Xyl	2400 - 4000	50 max	3.6	120	472	●	●	●	●		●
SM 515/70BAC	70	n-BuAc	3600 - 6000	100 max	4.5	150	378	●		●	●	●	
SM 516/70BAC	70	n-BuAc	7000 - 11000	200 max	4.5	150	378				●	●	●
SM 540/60X	60	Xyl/ BuAc	1400 - 2400	200 max	1.4	45	1214	●					●
SM 548/50X	50	Xyl/ n-BuAc	600 - 1200	70 max	2.0	65	850	●	●	●	●		
VSM 1001/60XBAC	60	Xyl/ BuAc	650 - 1500	100 max	3.6	120	472	●				●	
VSM 1007/70LG	70	Xyl/ BuAc / Tol	5000 - 13000	100 max	3.1	103	548	●				●	
VSM 1509/60LG	60	BuAc/ Aro 100	5000 - 7000	200 max	3.0	100	561	●	●	●	●		●
VSM 2570/70BAC	70	n-BuAc	2200 - 3800	80 max	2.4	80	700				●	●	●
VSM 2706/60X	60	Xyl	1500 - 3500	200 max	2.6	85	653	●		●	●	●	
VSM 2800/70BAC	70	n-BuAc	2000 - 5000	100 max	4.4	145	387				●	●	●
VSM 2805/80BAC	80	n-BuAc	4000 - 8500	200 max	4.3	142	395				●	●	●

Water-borne resins

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	OH number on solid resin	OH equivalent on F O D	AV on solid resin	Neutralization agent	Fast drying	Sandability	HAPs free	Hardness	Flow and leveling	Flexibility
VSM 2521w/42WAB	42	Water/n-Butanol	1000 - 4000	140	950	40	DMEA	●	●		●		
VSM 6299w/42WA	42	Water	800 - 4000	135	990	< 30	DMEA	●		●	●	●	●

FOD: form of delivery

Macrynal™ Facts

Isocyanate stoichiometry calculation

NCO equivalent weight = MW / NCO# OH equivalent weight = MW /OH#

OH number = % OH * 33 eq weight OH = 56100 / OH number

Question: Calculate the NCO: OH ratio to crosslink 75 g of Macrynal™ VSM 6299 with a blend of Desmodur™ N3600 - Bahydur VPLS 2319 at a ratio of 1 OH for 1.3 NCO (Usual in the WB systems due to reaction with water)

Resin	solid	OH#	OH eq	NCO#	NCO eq wt
Macrynal VSM 6299	42	135	416		
Desmodur N3600	100				183
Bayhdur VPLS 2319	100				233

75g VSM 6299w x (.42) x 1/416 = 0.0757 OH equivalent

10 g N3600 x 1/183 = 0.0546 NCO equivalent

10 g VPLS 2319 x 1/233 = 0.0429 NCO equivalent

total NCO equivalent = 0.0975 NCO equivalent

0.0975 NCO equivalent / 0.0757 OH equivalent

= 1.3:1 NCO : OH

Phenodur™ Phenolic Solvent-borne Resins and Water-borne Dispersions

Product	Non-volatile %	Solvent	Viscosity at 23°C mPa.s	Compatible with epoxy resins	Compatible with PVB (Butvar™) resins	Usual ratio Epoxy:Phenolic / Phenolic:PVB Butvar™	Color	Silver lacquer	Typical baking conditions
PR 260/68B	68	Butanol	2300 - 3700*	●	●	90:10	medium		15 min
PR 263/70B	70	Butanol	390 - 530*	●	●	80:20 to 50:50 / 90:10	medium		
PR 285/55IB/B	55	But/Isobut 4/5	180 - 250	●	●	80:20 to 50:50 / 90:10	dark		15 min
PR 307/63X/MP	63	X/MP	1000 - 1700	●	●	additive	very dark		
PR 308/62MP	62	MP/Butanol	1000 - 2250*	●	●	additive	very dark		
PR 373/53BG/B	53	BG/Butanol	1200 - 2500		●	10:1 to 1:1	medium		15 min
PR 401/72B	72	Butanol	800 - 1800*	●		80:20 to 50:50	very light	●	10 - 12 min
PR 411/75B	75	Butanol	250 - 1500	●		8:2 to 1:1	very light	●	10 - 12 min
PR 515/60LG	60	But/Xylene 36:4	230 - 410	●	●	80:20 to 50:50 / 90:10	very light	●	12 min
PR 516/60B	60	Butanol	150 - 500	●	●	4:1 to 2:1 / 90:10	very light	●	10 - 12 min
PR 565/65XB	65	Xyl/Butanol	500 - 2000	●	●	8:2 to 1:1 / 90:10	very light	●	12 - 15 min
PR 612/80B	80	Butanol	80 - 125**	●	●	80:20 to 50:50 / 90:10	medium		12 min
PR 722/53BG/B	53	BG/Butanol 3:1	1500 - 4000*	●	●	80:20 to 50:50 / 90:10	medium		12 min
PR 723/60BMP	60	Butanol/MP	200 - 380	●	●	80:20 to 50:50 / 90:10	medium		12 min
PR 898/52BGB	52	BG/Butanol	400 - 1400	●	●	8:2 to 1:1 / 90:10	light		15 - 20 min
VPM 1150/50EPAC	50	EPAC	1500 - 4000	●	N.A.	Co curing resin	clear	●	12 min
VPR 1785/50MP	50	MP	50 - 700	●	●	3:7 and 7:3	medium		12 min
VPW 1942/52WA	52	Water	100 - 1000	N.A.	N.A.	N.A.	light		12 min

* Viscosity at 50% diluted with Butanol

** Viscosity at 60% diluted with Butanol

N.A. = non applicable

Temperature° C	Additol XK 406N	Wedge bend	Erichsen number 2	2% lactic acid	Cysteine test/ 90 min at 121 C	Can	Tubes	Drums	Metal foils	Water-borne	Wash primer
230		medium	medium	good	medium			●			
		N.A.	N.A.	N.A.	N.A.						●
190		very good	good	good	good		●	●			
							coloring resin			●	
							coloring resin			●	
200/230		bad	bad	good	medium			●			
180	●	medium	good	good	good	●					
200	●	medium	good	good	good	●		●	●		
200	●	medium	good	medium	bad		●				
200	●	good	good	good	good	●	●	●	●		
200	●	very good	very good	good	very good	●			●		
200	●	good	very good	good	medium		●		●	●	
200	●	very good	very good	good	good	●					
200	●	good	medium	good	bad	●	●				
200	●	good	good	very good	good	●	●				
200		Depend EP resin		very good	medium	●			●		
200	●	very good	very good	very good	good	●	●		●		
200		good	medium	good	medium	●	●		●	●	

Resydrol™ Water-borne Alkyd Dispersions for Air-Drying and Forced Dry Systems

Product	Non-volatile %	Solvent	Viscosity at 23°C mPa.s	Amine neutralization	Appearance	pH at 10% in water	Type of modification	Oil length	VOC free	Fast initial drying	Rapid through drying	Fast development of hardness
AX 237w/70BG	70	BG	8000 - 14000	N.A.	brown/opaque	N.A.	Epoxy	23%	no	●		
AY 241w/40WA	40	Water/BG	3000 - 6000	NH ₃	white/opaque	8.0 - 9.5	Acrylic	21%	no	●	●	
AY 466w/38WA	38	Water/BG	3000 - 11000	NH ₃	brown/opaque	7.5 - 9.0	Acrylic	46%	no	●		
AY 466w/45WA	45	Water/NMP	1500 - 6500	TEA	light brown/opaque	7.5 - 9.0	Acrylic	46%	no			
AY 498w/35WA	35	Water	100 - 1100	TEA	yellow-brown	7.5 - 9.5	Acrylic	47%	yes	●		
AY 586w/38WA	38	Water/BG	2500 - 10000	NH ₃	opaque	7.5 - 9.0	Acrylic	58%	no	●		
AY 586w/42WA	42	Water	400 - 2500	NH ₃	opaque	7.5 - 8.5	Acrylic	58%	yes	●		
AY 586w/45WA	45	Water	5000 - 10000	NH ₃	opaque	7.5 - 8.5	Acrylic	58%	yes	●		
AZ 248w/60SNAMP	60	Aro 100/MP	260 - 530	TEA	yellow-brown	9.0 - 10.0	Urethane	51%	no	●	●	●
AZ 436w/45WA	45	Water/BG	4000 - 12000	NH ₃ /DMEA	milky	8.5 - 9.5	Urethane	43%	no	●		
VAF 6111w/60WA	60	Water	400 - 1200	not needed	milky	5.5 - 8.5	None	40%	yes			
VAN 6113w/42WALG	42	Water/BG/MP	500 - 3000	cationic resin	white opaque	3.0 - 5.0	Polyester	N.A.	no	●		
VAX 6267w/40WA	40	Water	45 - 200	TEA/DMEA	whitish	8.0 - 9.0	Epoxy	7%	yes	●	●	●
VAY 6096w/39WA	39	Water/BG	2000 - 8000	NH ₃	brown/opaque	7.0 - 9.0	Acrylic	32%	no	●	●	●
VAY 6278w/45WA	45	Water	100 - 900	NH ₃	white opaque	7.8 - 8.6	Acrylic	15%	no	●	●	●
VAZ 4200w/45WA	45	Water/BG	3000 - 10000	TEA/DMEA	whitish	8.5 - 9.5	Urethane	58%	no			
VAZ 6000w/47WA	47	Water	1500 - 7000	AMP		8.0 - 9.5	Acrylic			●		

N.A. = non applicable

Resydrol™ Facts

Neutralization equation

$$\frac{R \times AN \times E \times (\% \text{ neutralization})}{56 \ 100} = \text{wt. of amine}$$

R = Wt. % Resin solids
AN = Acid number of weight solids
E = Equivalent wt. Amine

56.100 (KOH sol'n equivalent wt., constant)

Question

How many grams of ammonia and TEA are needed to neutralize 100 g of a 70% solids alkyd, acid number = 40. Neutralize 50/50 with ammonia/TEA based on equivalents.

Answer

$$\frac{70 \times 40 \times 101^* \times (.50)}{56 \ 100} = 2.5 \text{ g TEA}$$

$$\frac{70 \times 40 \times 61^* \times (.50)}{56 \ 100} = 1.5 \text{ g NH}_3$$

* Equivalent wt. of Amine from table below.

Resydrol™ Water-borne Alkyd Dispersions for Baking Systems

Product	Non-Volatile %	Solvent	Viscosity at 23° C mPa.s	Amine neutralization	Appearance	pH	VOC free	Modification
<i>AM 224w/40WA</i>	40	WaterM/P	100 - 700	DMEA	opaque brown	7.5 - 9.0	no	Fatty acid
<i>AX 246w/70BG</i>	70	BG/MP	340 - 690	DMEA	brown	not neutralized	no	Epoxy
<i>AX 247w/70BGMP</i>	70	BG/MP	9000 - 17000	None	brown	not neutralized	no	Epoxy polyester
<i>AX 906w/35WA</i>	35	WaterM/P	160 - 560	DMEA	clear opaque	7.0 -8.5	no	Epoxy polyester

N.A. = not applicable

	Oil length	Hardness	Impact	Yellowing resistance	Metal	Non ferrous substrates	Single coat	High filled topcoat	Stone chip resistance	Corrosion protection	Water resistance	Shear stable	Pigment wetting	High gloss	Weathering	Sag resistance	High reactivity	Heat resistance	For use in blend to increase reactivity	Increase of solid contents	Primer	Anti-corrosion primer	DTM	Dip enamel	Industrial topcoat	Drums coating	OEM primer/surfacer	Low temperature	Textured paint	
		●	●	●	●		●			●	●	●	●	●	●	●						●	●	●	●	●			●	
22%					●					●		●	●				●	●			●	●		●				●		
22%					●	●				●	●	●	●	●			●				●	●	●	●	●			●		
		●	●		●	●					●	●	●		●		●	●	●	●		●		●				●		

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	Tg / °C	AV on solids	OH number on solid resin	OH equivalent on F O D	Physically drying	Crosslink with amino resin	Fast dry	Shear stability	Yellowing resistance
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Thermosetting Acrylic

SC 303/65XB	65	Xyl/n-Butanol	19000 - 30000		10 - 15	80	455		●	●		
SC 341/60SNABAC	60	Aro 100/n-BuAc	1000 - 2000		13 - 20	86	1090		●			
SC 370/75SNA	75	Aro 100	4200 - 7200		8 - 122	120	625		●			
SC 1866/65SNA	65	Aro 100	6000 - 10000		0 - 25	117	738		●			
VSC 5754/60SNABAC	60	Aro 100/n-BuAc	700 - 1100		5 - 15	82	1140		●			

Cold Plastic

VSC 5745	100	MMA/BA	60 - 115		< 25	N.A.	N.A.			●		
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Thermoplastic Acrylic

SC 2925/33TMEK	33	Toluene/ MEK	100 - 400	76	< = 7	N.A.	N.A.	●		●	●	
VSC 6324/46BAC	46	BuAc	4000 - 9000	75	22 - 32	40	3080	●		●		●

N.A. = non applicable

Viacryl™ Water-borne Acrylic Resins, Physically Drying/Self-crosslinking

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	pH at 10% in water	MEFT in °C	OH number on solid resin	OH equivalent on F O D	Physically drying	Self crosslink	Fast dry	Sandability	High solids	Hardness
VSC 6254w/40WA	40	Water	150 - 700	8 - 9	45	60	2337	●		●			
VSC 6265w/40WA	40	Water	200 - 1300	8 - 9	26	65	2158	●		●	●		●
VSC 6279w/45WA	45	Water	280 - 1600	7.5 - 8.5	25	65	1918	●		●	●		●
VSC 6295w/45WA	45	Water	30 - 600	6.5 - 7.8	30			●	●	●	●		●

Water-borne Acrylic Resins for 1K Baking Systems or 2K with Isocyanates

VSC 6250w/65MP	65	Methoxy propanol	18000 - 35000	N.A.									
VSC 6800w/47WA	47	Water	300-2000	8 - 9		100	1195					●	

Vialkyd™ Solvent-borne Alkyd Resins

Product	Non-Volatile %	Solvent	Viscosity at 23°C mPa.s	AV on solid resin	Oil length	Oil type or modification
<i>AC 290/70MPAC</i>	70	MPAc	65 - 210	< 15	29%	Synthetic fatty acid
<i>AN 950/70X</i>	70	Xyl	2300 - 3100	< 12	Polyester	N.A.
<i>VTS 1202/65MPAC</i>	65	MPAc	7500 - 9500	< 10	Silicone modified polyester	N.A.
<i>AN 908/55SNBMPP</i>	55	Naphta / MPP	300 - 500	< 9	N.A.	Oil free, saturated polyester
<i>SAU 550/70WS</i>	70	White spirit	120 - 240	< 6	55	Aluminium compound

	Iodine color at 50% sol	OH number on solids	High solids	Exterior	Fast drying	Air dry/Forced air	Compatible with acrylic resins	2K with isocyanates	Bake enamels	Harness	Chemical resistance	Pigment wetting	Grinding resin	Flexibility	Primer	Topcoat	Gloss	Sanding	Yellowing resistance	Coil coating	Baking topcoat for metal	Anticorrosion primer	Air dry topcoat	Pigment paste	Dipping paint	Blend with Macrynal resins	Metallic basecoat	Tube and can
^ 5			●	●			●	●	●			●	●	●			●		●		●		●					
^ 5	140								●	●	●					●	●	●	●	●	●				●	●	●	
^ 10	210		●						●	●	●	●		●		●	●	●		●	●							
^=3			●						●	●	●	●			●	●	●				●							●
^=12			●	●	●							●	●		●	●			●			●	●					

Viapal™ Unsaturated Polyester Resins (UP Resins)

Grade	From Supplied	Solvent	Viscosity (DIN 53211) (20 °C) (s)	Shrinkage on Curing (%b.v.)	Geltime (in minutes) at 20 °C	Colour	Styrene Compatibility
Viapal UP 143B/69	69%	Styrene	80-110	4.0 %	16+/-4 (with 2% BPO)	Reddish	Unlimited
Viapal VUP 9055/63	63%	Styrene	125-140	4.0 %	6+/-2 (with 4% BPO)	Purple	Unlimited
Viapal VUP 9060/63	63%	Styrene	80-130	4.0 %	10+/-2 (with 4% BPO)	Yellow	Unlimited
Viapal UP 260B/62	62%	Styrene	450-670 DIN EN ISO 3219 at 23 °C mPa.s	6.0 - 7.0 %	3-4 (with 4% BPO)	brownish	1 : 4 (resin : styrene)

Key Product Features	Key Applications
Medium viscosity, medium reactivity, pre-accelerated unsaturated polyester resin, excellent adhesion to metals & impact resistance. Room temperature curing can be initiated with benzoyl peroxide.	Most suitable for automotive refinish, esp. for production of fast curing car putties, surfaces & bondings at room temperature.
Medium viscosity, medium reactivity, pre-accelerated unsaturated polyester resin, excellent adhesion to metals & impact resistance. Low temperature curing can be initiated with benzoyl peroxide.	Most suitable for automotive refinish, esp. for production of automotive body patching compound for thick coating & bondings at low temperature.
Medium viscosity, medium reactivity, pre-accelerated unsaturated polyester resin, excellent adhesion to metals & impact resistance. Low temperature curing can be initiated with benzoyl peroxide.	Most suitable for automotive refinish, esp. for production of automotive body patching compound for thick coating & bondings at low temperature.
Highly reactive hard polyester resin. Good storage stability. Excellent sandability. Room temperature curing can be initiated with benzoyl peroxide.	Sole binder for knifing putties for vehicle and do-it-yourself repair.

Contacts

South America

Cytec Surface Specialties Brazil

Av Magalhães de Castro, 715
Cep: 05502-001 São Paulo - SP
Brasil
Tel. : +55 11 3038 0800
Fax : +55 11 3038 0811

North America

Cytec Surface Specialties USA

1950 Lake Park Drive
Smyrna, Georgia 30080
Toll free: 1 800 433 2873
Fax : 770 970 8391

Central America

Cytec Surface Specialties Mexico

Via Gustavo Baz#2160
Edificio 3, primer piso, oficina 1
Conjunto Corporativo Tlalnepantla, Fracc.
Industrial La Loma
Tlalnepantla, Edo. de México,
54060, México

Tel. : +52 (55) 5366 5846

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www.surfacespecialties.com
coatingsla@cytec.com