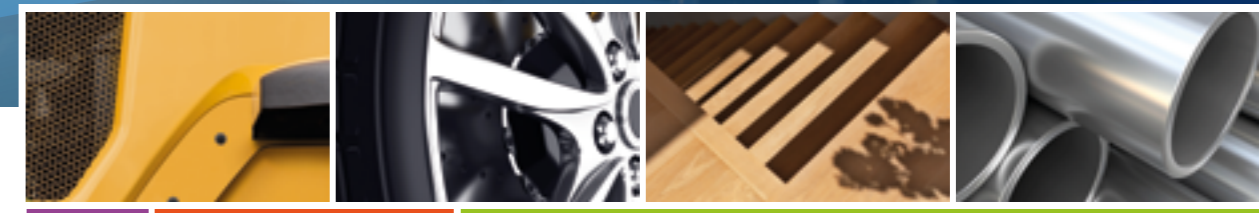


# LIQUID RESINS & ADDITIVES



**Corporate Center**  
Frankfurt  
The Squaire  
Am Flughafen  
D 60549 Frankfurt am Main  
Germany

The operating allnex group is legally owned by Allnex Holdings S.à r.l., a company based in Luxembourg, which also provides long term strategic decisions relating to its investment in allnex.

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# About allnex



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# Facts & Figures

- Global company with €2.2 bn in sales
- Broad Technology portfolio: liquid coating resins, energy curable resins, powder coating resins, crosslinkers and additives, composites and construction materials
- Approximately 4000 employees
- Customers in more than 100 countries
- 33 manufacturing facilities
- 23 research and technology centers
- 6 joint ventures
- Extensive range of solutions for key coating segments: automotive, industrial, packaging coating and inks, protective, industrial plastics and specialty architectural

With manufacturing, R&D and technical facilities located throughout Europe, North America, Asia Pacific and Latin America, allnex offers global and reliable supply of resins and additives combined with local, responsive customer support.

## Introduction

allnex is a leading producer of liquid coating resins and additives (LRA). The LRA business provides a comprehensive range of products with its core technologies including: Alkyds, Acrylics, Epoxies, Polyesters, Polyurethane Dispersions and Additives for use in water borne, solvent borne and solvent free paint and coatings. Our products lend themselves

to be used in multiple end-user segments including Automotive OEM, Vehicle Refinish, Marine & Protective, High End Metal Finishes, Decorative and Construction. With research and development and technical facilities located on five continents, we offer innovative solutions to fulfill technical and regulatory requirements around the world.



Solvent borne

Resin type	Trade names	Resin sub type	Page
Acrylic resin	MACRYNAL® SETALUX® VIACRYL®	Acrylic polyol, low solids	10
		Acrylic polyol, medium solids	12
		Acrylic polyol, high solids	14
		Acrylic, two-component NCO free	16
		Non-aqueous acrylic dispersion	16
		Thermoplastic acrylic	14
		Thermosetting acrylic	16
		Alkyd resin	SETAL® SETYRENE® VIALKYD®
Long oil alkyd, styrene modified	18		
Long oil alkyd, urethane modified	18		
Medium oil alkyd	18		
Medium oil alkyd, silicone modified	18		
Short oil alkyd	20		
Short oil alkyd, acrylic modified	20		
Short oil alkyd, silicone modified	20		
Short oil alkyd, styrene modified	20		
Bisoxazolidine resin	SETA®		
Epoxy resin	BECKOPOX™	Epoxy resin	24
	DUROXYN™	Epoxy ester	24
Epoxy hardener	BECKOPOX™	Amine hardener	24
Hydrophobic polyol resin	SETATHANE®	Polyester polyol	28
		Polyether-ester polyol	28
Other resin	BECKOCOAT® RESAMIN® VIAMIN®	Moisture curing resin	24
		Carbamide resin	24
		Plastified urea resin	24
Polyester resin	DUROFTAL® SETAL® VIALKYD®	Polyester polyol	22
		Saturated polyester	22
		Saturated polyester, silicone modified	22
Rheology control resin	SETAL®	Long oil alkyd, thixotropic modified	30
		Polyester polyol, SCA modified	30
		Saturated polyester, SCA modified	30
	SETALUX®	Acrylic polyol, SCA modified	30
		Thermosetting acrylic, SCA modified	30
Unsaturated polyester resin	ROSKYDAL®	Amine-accelerated unaturated polyester resin	26
		Standard unsaturated polyester resin	26

Water borne

Resin type	Trade names	Resin sub type	Page	
Acrylic resin	MACRYNAL® SETAQUA® VIACRYL®	Acrylic polyol dispersion	34	
		Acrylic polyol emulsion	34	
		Thermosetting water borne acrylic	34	
		Acrylic resin for two-component NCO free	36	
		Self-crosslinking acrylic dispersion	36	
		Self-crosslinking acrylic dispersion, surfactant free	36	
		Special acrylic dispersion	36	
		Thermoplastic acrylic dispersion	36	
		SETALUX®	Thermosetting acrylic, water thinnable	16
		UCECRYL®	Acrylic emulsion	38
Alkyd resin	RESYDROL® SETAQUA® SETAL®	Water borne alkyd for air drying	40	
		Water borne alkyd for baking	40	
		Water reducible alkyd for air drying	42	
		Water reducible alkyd for baking	42	
CED resin	RESYDROL®	Epoxy resin for Industrial CED	46	
	VIACRYL®	Acrylic resin for Industrial CED Radiation curable resin for Industrial CED	46	
Epoxy resin	DUROXYN™	Epoxy ester	44	
	BECKOPOX™	Epoxy resin	44	
		One-component epoxy resin	44	
Epoxy hardener	BECKOCURE™	Amine hardener for Easy Cure system	44	
	BECKOPOX™	Amine hardener	24	
Hydrophobic polyol resin	SETATHANE®	Polyol emulsion	28	
Polyester resin	DUROFTAL® RESYDROL® SETAQUA®	Water borne polyester resin	40	
		Water reducible polyester resin	42	
Polyurethane resin	DAOTAN™	Polyurethane dispersion	48	
Rheology control resin	SETAQUA®	Pseudoplastic acrylic dispersion	30	

Additives

Trade names	Additive sub type	Page
ADDITOL® MODAFLOW® MULTIFLOW®	Air release additive	54
	Defoamer	54
	Anti-adhesion additive	56
	Anti-floating additive	52
	Drier	56
	Flow and leveling additive	52
	Grinding media	52
	Rheology additive	56
	Substrate wetting additive	52
	Wetting and dispersing additive	52
	CYCAT®	Catalyst
TUNGOPHEN®	Special alkyd additive	56

Abbreviations

AEW	Amine Equivalent Weight	MPA	Methoxy propyl acetate
AHC	Aliphatic hydrocarbons	MPP	Methoxypropoxy propanol
AV	Acid Value	NaOH	Sodium hydroxide
AMP 90	2-Amino-2-methyl-1-propanol, 90% in water	n.a.	not applicable
APEO	Alkyl phenol ethoxylate	nBut	n-Butanol
BADGE	Bisphenol A diglycidylether	NEP	N-Ethyl pyrrolidon
BDG	Butyl diglycol	NH3	Ammonia
BDGA	Butyl diglycol acetate	NMP	N-Methyl pyrrolidon
BG	Butyl glycol	NPE	Nonyl phenol ethoxylate
BP	Butoxy propanol	PCBTF	Parachlorobenzotrifluoride
BuAc	Butyl acetate	PE	Propoxy ethanol
CED	Cathodic electrodeposition	PGMEA	Propylene glycol methyl ether acetate
DCO	Dehydrated castor oil	PnP	Dowanol PnP <sup>1)</sup>
D40	Solvent D40	PVC	Polyvinyl chloride
D60	Solvent D60	SB	Solvent borne
DEGBE	Diethylene glycol monobutyl ether	SCA	Sag Control Agent
DMEA	Dimethyl ethanol amine	SN	Solvent Naphtha
DPGDME	Dipropylene glycol dimethyl ether	SN 150	Solvent naphtha 150
DPM	Dowanol DPM <sup>1)</sup>	SN 180-210	Solvent Naphta 180-210
EEW	Epoxy Equivalent Weight	Sty	Styrene
EP	Ethoxy propanol	TDI	Toluene diisocyanate
EPA	Ethoxypropyl acetate	TEA	Triethyl amine
Eth	Ethanol	Tex	Texanol
HEW	Hydroxy Equivalent Weight	Tol	Toluene
i-But	Isobutanol	TPG	Tripropylene glycol
i-Pro	Isopropanol	WA	Demineralized water
MB	Methoxy butanol	WB	Water borne
MFFT	Minimal Film Forming Temperature	WS	White Spirit
Met	Methanol	WS 165	White Spirit 165
MP	Methoxy propanol	Xyl	Xylene

1) Dowanol is a registered trade mark of The Dow Chemical Company

GENERAL NOTES

Listed values are indicative averages. See datasheets for actual specifications and measuring methods.  
 An \* behind the product name indicates other delivery form(s) available.  
 Equivalent Weights are given in gram/equivalent, calculated on delivery form.  
 The thix index for rheology control resins is defined as the ratio between low shear viscosity and high shear viscosity.

All following trade names are registered and owned by allnex.

Trade name	Product sub type
ADDITOL®	Additives for dispersing, leveling, defoaming and drying
BECKOCOAT®	Moisture curing resins
BECKOCURE™	Amine hardeners for epoxy resins and dispersions
BECKOPOX™	Water borne and solvent borne epoxy resins and hardeners
CYCAT®	Acid based catalysts for heat cure coatings
DAOTAN™	Water borne polyurethane dispersions
DUROFTAL®	Solvent borne hydroxylated polyesters
DUROXYN™	Water borne and solvent borne epoxy ester resins
MACRYNAL®	Water borne and solvent borne acrylic polyols
MODAFLOW®	Additives for flow and leveling
MULTIFLOW®	Additive for flow and leveling
RESAMIN®	Solvent borne plasticizing resin
RESYDROL	Water borne modified alkyd resins
ROSKYDAL®	Unsaturated polyesters
SETA®	Bisoxazolidine resin
SETAL®	Solvent borne alkyd and polyester resins
SETALUX®	Solvent borne acrylic resins
SETAQUA®	Water borne acrylic and alkyd resins
SETATHANE®	Hydrophobic polyols
SETYRENE®	Acrylic modified short oil alkyd
TUNGOPHEN®	Special alkyd additive
UCECRYL®	Water borne acrylic emulsions
VIACRYL®	Water borne and solvent borne acrylic resins
VIALKYD®	Solvent borne alkyd resins
VIAMIN®	Plasticized urea resin

## Solvent borne acrylic resins

Resin name	OH (%) (on solids)	HEW (as supplied)	NV (%)	Solvents	Viscosity (23°C, Pa.s)	AV as supplied (mg KOH/g)	Color (max. value)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Acrylic Polyol - Low Solids</b>									
SETALUX® 1197 SS-40 *	1.1	3860	40	BuAc	4.0	7.6	35 APHA	0.98	Extremely fast drying, very good through hardening, good stackability and long potlife.
SETALUX 1193 SS-51	1.3	2470	53	BuAc	5.0	3.6	100 APHA	1.01	Extremely fast drying, very good through hardening, good stackability, long potlife, good light fastness.
SETALUX D A 960 SN	1.3	2180	60	SN	4.6	3.6	50 APHA	1.00	Good lightfastness and chalking resistance, good single-coat adhesion on steel and most non-ferrous metals.
MACRYNAL® SM 540/60X	1.4	240	60	Xyl	2.0	max. 3.0	200 Hazen	0.99	High gloss, excellent mechanical properties and superior adhesion to metals and non-iron metals (aluminium, zinc). Low NCO demand. Recommended for industrial metal primers and topcoats.
MACRYNAL VSM 2702/58XSNA	1.5	1935	58	BuAc / SN	1.7	max. 2.9	80 Hazen	0.99	Excellent adhesion to both ferrous and non-ferrous metals. Low NCO demand.
SETALUX 1179 BA-57	1.7	1750	57	BuAc	7.0	5.2	100 APHA	1.04	Very fast drying, very good through hardening, good stackability, long potlife, good chemical resistance, excellent mar and stain resistance, good light fastness.
MACRYNAL SM 507/53XBAC	1.8	1558	53	Xyl / BuAc	6.5	6.1	70 Hazen	1.00	Fast drying two-component lacquers for industrial applications as well as wood and furniture coatings. Superior adhesion to aluminum and plastic parts (ABS and PC).
SETALUX 1182 SS-55 *	1.8	1720	55	Xyl / BuAc	1.3	2.5	50 APHA	0.98	Excellent adhesion to metals such as aluminium, steel, zinc plated steel, stainless steel, excellent mechanical properties, good outdoor durability and quick drying.
SETALUX 1194 SS-52	1.8	1820	52	BuAc	25	10	50 APHA	1.04	Extremely fast drying, very good through hardening, good stackability.
SETALUX 1200 XX-55	1.8	1720	55	Xyl	1.6	3.3	50 APHA	0.98	Fast drying and good adhesion to various substrates such as aluminium, steel, zinc plated steel, stainless steel. Good mechanical properties and good outdoor durability.
MACRYNAL SM 548/50X	2.0	1725	50	Xyl	0.9	max. 2.5	70 Hazen	0.98	Fast drying two-component systems with high hardness for industrial topcoats. Low NCO demand.
SETALUX 1184 SS-51	2.0	1630	52	BuAc	9.2	3.6	50 APHA	1.01	Excellent fast drying, very good through hardening, good stackability, long potlife, good chemical resistance, excellent mar and stain resistance, good light fastness, good compatibility with poly-isocyanates.
SETALUX D A 450 BA *	2.0	1700	50	BuAc	4.0	4.0	50 APHA	1.01	Extremely fast-drying.
MACRYNAL VSM 2760/50BAC	2.1	870	50	BuAc	3.0	5.0	100 Hazen	1.01	High chemical resistance, light fastness and quick drying. Suitable for the formulation of high quality two-component coatings for furniture and parquet.
MACRYNAL VSM 2706/60X	2.6	1100	60	Xyl	2.5	5.7	200 Hazen	0.99	Fast drying two-component coatings for the industrial lacquer sector. Low NCO demand, better and good outdoor durability than MACRYNAL® SM 500/60X.
SETALUX 1196 XX-60 *	2.6	1090	60	Xyl	2.0	3.6	50 APHA	1.00	Fast drying, good through hardening, good adhesion, good chemical resistance, good light fastness, good compatibility with poly isocyanates.
SETALUX D A 160 X *	2.7	1050	60	Xyl	1.8	4.0	50 APHA	0.98	Good weather stability and good resistance to water, washing solutions and chemicals.
SETALUX D A 163 X	2.7	1000	63	Xyl	4.4	4.0	50 APHA	0.98	Good weather stability and good resistance to water, washing solutions and chemicals. Higher solids content than SETALUX® D A 160 X.
SETALUX 1214 XS-54	2.8	1120	54	Xyl / BuAc	2.3	3.2	50 APHA	1.00	Fast drying and good adhesion on various substrates such as aluminium, steel, zinc plated steel, stainless steel; good mechanical properties and good outdoor durability.
MACRYNAL SM 500/60X	2.9	1050	60	Xyl	2.9	4.5	70 Hazen	0.97	High gloss, good mechanical properties and good adhesion to metals and plastic substrates. In combination with polyisocyanates for air drying as well as forced drying primers and topcoats in industrial applications.
MACRYNAL VSM 1509/60LG	3.0	935	60	BuAc / SN	6.0	7.2	100 Hazen	1.04	Very fast drying, good balance of elasticity and hardness. High outdoor durability. For auto refinish systems.
SETALUX 1186 SS-60	3.0	930	61	Xyl / SN / BuAc	2.2	4.8	40 APHA	1.00	Excellent hardness, very good exterior durability, good gloss, good build, excellent solvent and mechanical resistance and excellent mechanical properties.
SETALUX D A 760 BA/X	3.0	940	60	Xyl / BuAc	2.0	6.5	50 APHA	1.02	Good light stability, chalking resistance and gloss retention.
SETALUX 1199 XS-60	3.5	810	60	Xyl / SN / BuAc	6.0	6.9	35 APHA	1.01	High mechanical strength and good corrosion, chemical and weather resistance.
MACRYNAL SM 513/60LG	3.6	780	60	Xyl / BuAc / SN	3.2	7.5	50 Hazen	1.01	Excellent mechanical properties and chemical resistance for fast drying two-component systems, in particular for primer surfacers in automotive refinish and for general industrial applications.
SETALUX 1160 XS-51	3.6	930	51	Xyl / BuAc	3.4	4.1	100 APHA	1.00	Good stone-chip resistance, good sandability and good adhesion.
SETALUX 1187 XX-60	3.6	790	60	Xyl	0.38	3.6	50 APHA	1.01	Excellent mechanical properties and chemical resistance, high-medium solids. In combination with IPDI based hardeners: high solid, high build, good gloss, excellent outdoor durability and light fastness, good mechanical properties.
SETALUX 1192 SS-60	3.8	730	61	BuAc	3.6	4.0	35 APHA	1.03	Very fast drying at room and elevated temperature, excellent appearance, easy application, good outdoor durability, good adhesion results to metallic basecoats, good yellowing resistance in accelerated weathering tests.
SETALUX 1152 SS-60 *	4.2	660	61	Xyl / MPA	4.0	4.8	75 APHA	1.03	Easy application, even under conditions of high humidity and low temperatures. High build and practically no yellowing under UV light, excellent exterior durability, good mechanical properties and chemical resistance.
SETALUX 1151 XX-51 *	4.4	760	51	Xyl	1.0	4.1	60 APHA	0.99	Excellent hardness, very good exterior durability, excellent mechanical properties, easy application facilities especially in airless-spray equipment and also under severe humidity conditions and low temperatures.

## Solvent borne acrylic resins

Resin name	OH (%) (on solids)	HEW (as supplied)	NV (%)	Solvents	Viscosity (23°C, Pa.s)	AV as supplied (mg KOH/g)	Color (max. value)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Acrylic Polyol - Low Solids (continued)</b>									
MACRYNAL® SM 510n/60LG	4.5	625	60	Xyl / BuAc / SN	3.0	4.5	25 Hazen	1.01	At ambient temperature drying or forced drying two-component systems with high gloss, excellent mechanical properties, superior outdoor durability and chemical resistance, in particular for automotive refinish topcoats and clearcoats.
MACRYNAL SM 510n/60LGV5	4.5	625	60	BuAc / PCBTF	3.0	5.1	25 Hazen	1.10	Air drying and force air drying two-component systems intended primarily for use in automotive refinish clear coats having 2.1 lbs/gal VOC possible when formulated with exempt solvents.
SETALUX® 1189 SS-60	4.5	630	60	Xyl / MPA	5.5	4.5	25 APHA	1.03	Good build and gloss, fast drying with high end-hardness, good exterior durability.
SETALUX 1190 SS-61	4.5	620	61	Xyl / MPA	9.2	4.5	35 APHA	1.03	Good build and gloss, high end-hardness, good exterior durability.
MACRYNAL VSM 2155/60EPAC	5.8	492	60	EPA	4.4	max. 3.6	80 Hazen	1.06	Excellent chemical resistance and pigment wetting. Especially suited for airplanes or military vehicles.
<b>Acrylic Polyol - Medium Solids</b>									
SETALUX D A 170 BA	2.6	930	70	BuAc	3.8	13	50 APHA	1.02	Broad application properties (brushing, rolling and airless spraying), good weather stability, resistance to water, washing solutions and chemicals.
MACRYNAL SM 2711/70BAC	2.7	890	70	BuAc	2.0	3.8	100 Hazen	1.05	Air drying as well as forced drying high-solids two-component primers and topcoats for industrial applications. Fast drying with high hardness.
MACRYNAL SM 2727/70X	2.7	890	70	Xyl	2.2	4.6	100 Hazen	1.04	Air drying as well as forced drying industrial applications. Fast drying systems with high hardness, robustness and good UV resistance.
SETALUX 1218 VX-70	2.8	870	70	SN / Xyl	4.1	6.5	50 APHA	1.01	Fast drying and good chemical resistance, good adhesion.
SETALUX 1202 SS-70	3.0	810	70	BuAc	1.8	6.0	20 APHA	1.00	Fast drying, good hardness, good outdoor durability, good gloss and build, good solvent and chemical resistance and good mechanical properties.
SETALUX 1217 BA-70	3.0	810	70	BuAc	9.5	4.2	20 APHA	1.00	Very fast drying, good hardness, good outdoor durability, good gloss and build, good solvent and chemical resistance and good mechanical properties.
SETALUX 1211 BA-65	3.0	870	65	BuAc	2.0	6.5	35 APHA	1.03	Good weather resistance and good appearance. Suitable for the manufacture of air-drying and forced drying two-component paints with high mechanical strength.
SETALUX D A 265 BA	3.1	840	65	BuAc	2.3	max. 15	150 APHA	1.06	High hardness with good flexibility, high gloss, high body, good lightfastness and weather stability.
SETALUX 1905 BA-74	3.3	700	74	BuAc	3.9	6.6	50 APHA	1.05	High build and gloss, excellent mechanical properties and good outdoor durability.
MACRYNAL SM 2892/65XBAC	3.3	785	65	Xyl / BuAc	3.0	-	100 Hazen	1.01	Combinatorial resin to improve flexibility (also at lower temperatures) for high quality, flexible two-component clearcoats and pigmented topcoats. The cured films provide a good balance of flexibility and hardness and weathering stability.
MACRYNAL VSM 2705/70LG	3.5	697	70	BuAc / SN	4.9	7.7	80 Hazen	1.03	High gloss, good mechanical properties, good chemical resistance for high quality, easy to apply high solids, two-component industrial coatings.
SETALUX D A HS 1170 BA	3.6	670	70	BuAc	1.2	7.0	75 APHA	1.05	High hardness and toughness with good flexibility, high gloss and body, outstanding lightfastness and weather stability, good resistance to solvents and petrol.
SETALUX 1198 SS-70	4.2	580	70	BuAc	10	6.7	35 APHA	1.05	Good exterior durability, good build and gloss, high end hardness and good adhesion results on metallic basecoats.
SETALUX 1753 SS-70 *	4.2	580	70	BuAc	5.0	10	35 APHA	1.04	Fast drying, high build and gloss, excellent mechanical properties and chemical resistance, practically no yellowing under UV-light, high solids content at application viscosity.
SETALUX D A 870 BA	4.2	575	70	BuAc	3.5	7.5	50 APHA	1.03	High hardness with very high flexibility, high gloss and body, outstanding weather- and lightfastness, good resistance against solvents and petrol.
MACRYNAL SM 565/70BAC	4.4	550	70	BuAc	3.1	7.0	100 Hazen	1.05	Air drying and forced drying high-solids two-component coatings with high gloss, outstanding mechanical properties, excellent chemical resistance and outdoor stability.
MACRYNAL VSM 2800/70BAC	4.4	495	70	BuAc	3.5	12	100 Hazen	1.04	High reactivity, high gloss, high DOI, good leveling, very high solids, two-component clearcoats and pigmented topcoats for automotive refinish and industrial lacquers.
SETALUX 1215 BA-68	4.5	560	67	BuAc	5.0	5.0	35 APHA	1.03	Suitable for the manufacture of air-drying and forced drying two-component lacquer systems with good exterior durability, good build and gloss, high end hardness and excellent chemical resistance.
SETALUX D A 365 BAX	4.5	580	65	BuAc / Xyl	3.0	7.5	100 APHA	1.03	High hardness and toughness with good flexibility, high gloss and body, excellent weather stability and lightfastness, good resistance to solvents and petrol.
MACRYNAL SM 2516/70BAC	4.5	535	70	BuAc	9.0	5.2	70 Hazen	1.05	Air-drying and forced drying two-component medium high solids systems with high gloss, excellent mechanical properties, excellent chemical resistance and good outdoor stability for automotive refinishes.
MACRYNAL SM 515/70BAC	4.5	535	70	BuAc	4.8	5.2	80 Hazen	1.05	Air drying and forced drying two-component systems with high gloss, excellent mechanical properties and excellent chemical resistance. Best in class for automotive refinish.
MACRYNAL SM 516/70BAC	4.5	535	70	BuAc	9.0	5.2	70 Hazen	1.05	Air drying and forced drying two-component medium high solids systems with high gloss, excellent mechanical properties, excellent chemical resistance and good outdoor durability for automotive refinish topcoats and clearcoats.

## Solvent borne acrylic resins

Resin name	OH (%) (on solids)	HEW (as supplied)	NV (%)	Solvents	Viscosity (23°C, Pa.s)	AV as supplied (mg KOH/g)	Color (max. value)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Acrylic Polyol - Medium Solids (continued)</b>									
MACRYNAL® VSM 2868/70BAC	4.5	535	70	BuAc	3.8	5.2	50 Hazen	1.07	High quality, high solids, two-component clearcoats and pigmented topcoats for the automotive refinish and industrial lacquer sectors. Varnishes based on MACRYNAL® VSM 2868 provide a higher solids content compared to MACRYNAL SM 515 or MACRYNAL SM 516.
SETALUX® D A 665 BA/X *	4.6	570	65	BuAc / Xyl	2.4	6.5	100 APHA	1.03	High hardness with good flexibility, high gloss and body, outstanding weather stability and lightfastness, good resistance to solvents and petrol.
MACRYNAL SM 2815/70BAC	5.5	445	70	BuAc	1.2	14	100 Hazen	1.05	Especially suited for topcoats and direct-to-metal monocoats in demanding outdoor applications.
MACRYNAL SM 2855/70BAC	6.0	400	70	BuAc	4.2	5.2	100 Hazen	1.04	Fast drying, excellent chemical and solvent resistance. Especially suited for coatings on airplanes or military vehicles.
<b>Acrylic Polyol - High Solids</b>									
MACRYNAL SM 2704/75BACX	1.9	1150	75	BuAc / Xyl	6.0	3.8	100 Hazen	1.03	Low NCO demand, fast drying, high hardness and good pigment wetting. Recommended for air-drying and forced drying high-solids two-component primers and topcoats for industrial applications.
SETALUX 1917 BA-80	2.1	1010	80	BuAc	9.5	max. 8.2	65 APHA	1.04	Fast drying, good adhesion and very good durability.
MACRYNAL SM 2703/80BACX	2.2	960	80	BuAc / Xyl	8.0	5.6	100 Hazen	1.04	Air drying as well as forced drying high-solids two-component topcoats for industrial applications. MACRYNAL SM 2703 is especially suited for industrial topcoats providing a low content of volatile organic compounds (VOC) and high pigment loading.
SETALUX D A HS 1375 BA	2.8	810	75	BuAc	5.0	8.0	100 APHA	1.04	High hardness and toughness with good flexibility, high gloss, good filling power, good weather and light stability and good resistance to solvents and gasoline.
SETALUX 1910 BA-75	3.6	630	75	BuAc	7.4	6.8	35 APHA	1.04	High build and gloss, good hardness build-up, good mechanical properties and good outdoor durability.
SETALUX D A 575 X	3.7	610	75	Xyl	3.5	5.0	100 APHA	1.06	High flexibility, lightfast and weather-stable.
SETALUX 1919 BA-74	3.8	600	74	BuAc	6.6	6.7	50 APHA	1.03	Fast drying, good hardness and outdoor durability, and good overall performance.
SETALUX 1921 BA-78	3.9	560	78	BuAc	6.1	4.0	65 APHA	1.05	High solids content at application viscosity. Fast drying, good hardness and outdoor durability, and good overall performance.
SETALUX 1906 BA-75	4.0	570	75	BuAc	9.6	9.7	35 APHA	1.05	Fast drying, high build and gloss, excellent mechanical properties and good outdoor durability.
SETALUX 1915 BA-75	4.1	550	75	BuAc	5.8	4.5	50 APHA	1.06	Super fast drying, high build and gloss, good mechanical properties, good chemical resistance and good outdoor durability.
MACRYNAL SM 2810/75BAC	4.2	555	75	BuAc	5.2	11	100 Hazen	1.04	Excellent pigment wetting, chemical resistance, mechanical properties and outdoor stability. For applications including car refinish, ACE as well as high quality industrial coatings.
MACRYNAL VSM 2805/80BAC	4.3	560	80	BuAc	6.2	7.2	200 Hazen	1.09	High quality ultra high solids two-component industrial coatings with high gloss, very good mechanical properties, very good chemical resistance and ease of application. MACRYNAL VSM 2805 is especially well-suited for thick-layer coatings.
SETALUX 1903 BA-75	4.5	500	75	BuAc	6.7	7.5	35 APHA	1.04	High build and gloss, good mechanical properties, good chemical resistance and good outdoor durability.
SETALUX 1907 BA-75	4.5	500	75	BuAc	6.0	6.7	30 APHA	1.04	High build and gloss, good mechanical properties, good chemical resistance and good outdoor durability.
SETALUX 1908 BA-75	4.5	500	75	BuAc	4.6	6.8	30 APHA	1.04	Low spray viscosity, high build and gloss, good mechanical properties, good chemical resistance and good outdoor durability.
SETALUX 1916 BA-76	4.5	500	76	BuAc	5.8	6.1	50 APHA	1.06	Outstanding appearance, good mechanical properties, good chemical resistance and good outdoor durability.
SETALUX 1909 BA-75	5.0	450	75	BuAc	3.0	6.2	35 APHA	1.06	Excellent scratch resistance.
SETALUX 1901 SS-75	5.4	420	75	BuAc	3.6	max. 3.8	35 APHA	1.04	High build and gloss, excellent mechanical properties, good chemical resistance and good outdoor durability.
<b>ThermoPlastic Acrylic</b>									
SETALUX 2117 XS-30	0.6	9140	31	BuAc / Xyl	1.6	max. 0.3	200 APHA	0.95	Fast drying.
SETALUX 2120 XS-40	1.7	2380	42	Xyl / BuAc	3.5	4.0	35 APHA	0.97	Very fast drying and good compatibility.
VIACRYL SC 120/50WS	-	-	50	WS	1.8	max. 4.0	5 Iodine	0.90	Sole binder for heavily filled paints for exterior walls, interior walls, Eternit, concrete and for brushing mortars.
VIACRYL SC 121/60X	-	-	60	Xyl	7.0	12	3 Iodine	1.00	Sole binder for road-marking paints. Fast drying primers and top coats for nonferrous metal and plastic substrates.
VIACRYL SC 124/50WS	-	-	50	WS	5.8	max. 2.5	5 Iodine	0.90	Maintenance paints, architectural paints. Air-drying and forced drying industrial enamels. Satin gloss enamels and flat structured enamels.
VIACRYL SC 126/50LG	-	-	50	Tol / Ac / Xyl	0.64	5.5	3 Iodine	0.94	Sole binder for road marking paints. Rapid solvent release, excellent adhesion. Quick trafficability after application.
VIACRYL SC 134/50WS165	-	-	50	WS 165	2.2	max. 1.5	200 Hazen	0,87	Sole binder for full tone masonry paints or resin modified plasters.



## Solvent borne acrylic resins

Resin name	OH (%) (on solids)	HEW (as supplied)	NV (%)	Solvents	Viscosity (23°C, Pa.s)	AV as supplied (mg KOH/g)	Color (max. value)	Density (kg/dm <sup>3</sup> )	Technical features
<b>ThermoPlastic Acrylic (continued)</b>									
VIACRYL® SC 166/45BAC	-	-	45	BuAc	0.52	max. 1.4	4 Iodine	0.97	Rapid drying industrial finishes and aerosol coatings.
VIACRYL SC 200/40X *	-	-	40	Xyl	1.6	12	2 Iodine	0.96	Air and forced drying industrial coatings with fast drying and high hardness. Specialty coatings for glass, precious metals and plastics.
VIACRYL VSC 2990	-	-	100	-	0.9	max. 18	200 Hazen	0.99	Highly elastic adjusted basis resin for high-grade two-component thick-layer roadmarking paints with very good weather and abrasion stability.
VIACRYL VSC 5709/50BAC	-	-	50	BuAc	0.32	20	3 Iodine	1.01	Rapid drying, high surface hardness and ageing resistance. For fast flash drying automobile repair enamels with radiant brilliance and outstanding weather resistance.
VIACRYL VSC 5721 65BAC	-	-	65	BuAc	0.45	17	10 Iodine	0.98	Sole binder for non-aromatic roadmarking paints with high solid content.
VIACRYL VSC 5745	-	-	100		0.88	max. 25	25 Iodine	1.06	Hard-elastic adjusted basis resin for high-grade two-component thick-layer roadmarking paints with very good weather and abrasion resistance.
<b>ThermoSetting Acrylic</b>									
SETALUX® 1385 BX-51 *	1.7	1920	52	Xyl / n-But	0.90	5.4	50 APHA	0.99	Good compatibility with cellulose aceto-butyrate resins.
VIACRYL SC 303/65XB	2.4	1078	65	Xyl / n-But	24	8.1	80 Hazen	1.01	Automotive metallic basecoats (wet-on-wet process). Stoving enamels with good outdoor stability and color retention.
VIACRYL SC 341/60SNABAC	2.6	1087	60	SN / BuAc	1.5	9.9	2 Iodine	0.99	Superior radiance, high surface hardness, excellent weather resistance for uni-colored automobile finishes and isocyanate systems. With light stabilizers for clear coats over metallic.
SETALUX 1756 VV-65	2.7	970	65	SN	4.0	11	125 APHA	1.01	High solids content at spraying viscosity, good durability and gloss.
SETALUX 1757 VV-70	3.6	670	70	SN	5.0	8.4	125 APHA	1.03	High solids content at spraying viscosity, excellent gloss, good mechanical properties, good solvent and acid resistance, adhesion and excellent accelerated weathering test.
VIACRYL SC 370/75SNA	3.6	625	75	SN	5.6	7.5	100 Hazen	1.03	For automotive finishes or general industrial purposes. Resin additive for improving solids content, body and gloss of stoving enamels and two-component systems. Resin base for pigment pastes.
SETALUX 1798 VS-70	3.8	640	70	SN / BuAc	4.0	8.4	100 APHA	1.04	Excellent gloss and DOI, good flexibility, good solvent and acid resistance, excellent water and humidity resistance.
SETALUX 1795 VX-74	4.5	510	74	SN / Xyl	4.3	8.2	50 APHA	1.02	Excellent appearance (DOI, flow), good outdoor durability, good mechanical properties, good solvent and acid resistance. High solids content at spraying viscosity.
SETALUX 1797 SS-70	4.5	540	70	SN / BuAc / PGMEA	1.6	9.4	50 APHA	1.03	Excellent application properties, good appearance, good mechanical properties such as flexibility and carwash resistance and outstanding weathering properties.
VIACRYL SC 444/50BSNB	n.a.	n.a.	50	n-But / SN 180-210	2.0	7.2	4 Iodine	0.95	Selfcrosslinking. Top quality single coats for domestic appliance. Clear and pigmented exterior coatings for cans. Great hardness combined with good flexibility. Excellent chemical resistance.
<b>ThermoSetting Acrylic, Water Thinnable</b>									
SETALUX 6100 GR-68	2.0	1250	68	BDG	8.8	12	250 APHA	1.05	Good pigment wetting, easy application, good gloss, good chemical resistance and excellent durability.
<b>Non aqueous Acrylic Dispersion</b>									
SETALUX 1850 SA-50	n.a.	n.a.	50	AHC / n-But	0.10	max. 1.5	n.a.	0.91	Low viscosity, very good application properties, excellent yellowing resistance.
<b>Acrylic two-component NCO free</b>									
SETALUX 8402 XS-55	n.a.	n.a.	56	Xyl / BuAc	12	10	250 APHA	1.00	Amine functional acrylic with amine equivalent weight 1300 g/eq. Fast drying, high gloss, good build, good mechanical properties and excellent outdoor durability.
SETALUX 8403 SS-55	n.a.	n.a.	56	BuAc	3.4	8.8	250 APHA	1.00	Amine functional acrylic with amine equivalent weight 655 g/eq. Fast drying, high gloss, good mechanical properties and excellent outdoor durability. Lower viscosity.
SETALUX 8502 BX-60	n.a.	n.a.	60	Xyl / n-But	2.1	max. 1.2	100 APHA	1.01	Epoxy functional acrylic with epoxy equivalent weight 570 g/eq. Fast drying, high gloss, good mechanical properties and excellent outdoor durability.
SETALUX 8503 SS-60	n.a.	n.a.	60	BuAc	0.28	max. 1.2	100 APHA	1.02	Epoxy functional acrylic with epoxy equivalent weight 569 g/eq. Fast drying, high gloss, good mechanical properties and excellent outdoor durability. Lower viscosity.
MACRYNAL® GF 100/73BAC	n.a.	n.a.	73	BuAc	1.0	-	100 Hazen	1.04	Epoxy functional acrylic with epoxy equivalent weight 400 g/eq. low VOC topcoats with good outdoor resistance.

## Solvent borne alkyd resins

Resin name	NV (%)	Solvents	Oil type	Viscosity (23°C, Pa.s)	Color (max. value)	OH - % (on solids)	HEW (as supplied)	AV as supplied (mg KOH/g)	Density (kg/dm³)	Technical features
<b>Long Oil Alkyd</b>										
SETAL® 293	99	-	Unsaturated fatty acids	1.0	8 Gardner	n.a.	n.a.	9.5	0.99	Very good brushability, leveling, filling, high gloss, low yellowing tendency and good through hardening. Suitable as reactive diluent.
SETAL 304	99	-	Unsaturated fatty acids	3.2	8 Gardner	n.a.	n.a.	7.5	1.00	Good drying, good durability and good pigment dispersing properties.
VIALKYD® AR 680	99	-	Dehydrated castor oil	0.27 (50WS)	7 Iodine	n.a.	n.a.	max. 10	1.06	Excellent through drying properties for anticorrosion and marine paints. Combinations with cyclized rubber e.g. ALPEX® CK 450. Architectural paints.
VIALKYD SAL 766	99	-	Linseed oil	0.26 (75Xyl)	10 Iodine	n.a.	n.a.	7.0	1.10	Good pigment dispersion properties, used for offset and letterpress printing.
VIALKYD VAF 6091	99	-	Vegetable fatty acids	0.62	6 Iodine	n.a.	n.a.	max. 10	0.95	High Solids resin for the production of primers, wood stains and top coats.
SETAL 305 SM-90	90	D40	Unsaturated fatty acids	2.5	8 Gardner	n.a.	n.a.	6.3	0.99	Very good drying, good durability and good pigment dispersing properties.
SETAL 312 SM-88	88	D40	Unsaturated fatty acids	7.5	3 Gardner	n.a.	n.a.	6.3	0.97	Excellent outdoor durability and very low yellowing in the dark. Largely based on renewable raw materials.
SETAL 301 SM-83 *	83	D40	Unsaturated fatty acids	4.8	9 Gardner	n.a.	n.a.	max. 7.6	0.98	Excellent durability and drying. Minimal yellowing.
VIALKYD SAF 724/78SD60	78	D40	Linoleic fatty acids	6.5	12 Iodine	n.a.	n.a.	max. 9.0	0.98	Very good brushability, outstanding outdoor resistance, and very good yellowing resistance.
SETAL A F 681 TBA *	70	D40	Vegetable fatty acids	2.8	6 Iodine	n.a.	n.a.	max. 12	0.95	Excellent through-drying and good yellowing resistance.
SETAL 270 SM-70 *	70	D40	Soya bean oil	5.5	6 Gardner	n.a.	n.a.	6.7	0.96	Good color fastness, brushability, body and flow, good durability.
SETAL 1257 SM-69	69	D40	Soya bean fatty acids	4.8	6 Gardner	n.a.	n.a.	4.4	0.90	Very good durability and drying, very little yellowing.
SETAL 62 EHV SM-60	60	D40 / Xyl	Soya bean oil	5.3	6 Gardner	n.a.	n.a.	5.5	1.00	Fast drying, excellent hardness, very good water resistance and durability.
VIALKYD AS 673M/60SD60	60	D60	Soya bean oil	0.54 (50D60)	10 Iodine	n.a.	n.a.	max. 7.0	0.92	Sole binder or for combination with medium oil or long oil VIALKYD® resins in the formulation of maintenance paints.
<b>Long Oil Alkyd, Styrene Modified</b>										
VIALKYD AV 608/60WS	60	WS	Linseed oil	0.23	10 Iodine	n.a.	n.a.	max. 4.0	0.90	Sole binder for aluminium paints with good gloss retention. Used for zinc dust paints, mica iron paints and anticorrosive paints.
<b>Long Oil Alkyd, Urethane Modified</b>										
SETAL 321 SM-75	75	D40	Mixed vegetable oils	6.0	8 Gardner	n.a.	n.a.	max. 2.8	0.95	Additive resin to improve solids, abrasion and chemical resistance. Good drying and hardness.
VIALKYD TO 750/65IRH	65	Isopar H	Mixed vegetable oils	1.2	10 Iodine	n.a.	n.a.	max. 7.0	0.94	Product for the manufacturing of floor oils.
VIALKYD TO 608/60WS *	60	WS	Soya bean oil	0.42 (50WS)	10 Iodine	n.a.	n.a.	max. 2.0	0.98	Easy to use, excellent weather resistance, good water and corrosion resistance, high gloss. Used as single binder in wood, floor and industrial finishes and primers.
SETAL A U 601 TB *	55	WS	Soya bean oil	1.2	3 Iodine	n.a.	n.a.	max. 3.0	0.92	Rapid drying, excellent hardness, high abrasion resistance and good long-term flexibility.
SETAL A U 601 HV TBA	51	D40	Soya bean oil	2.9	5 Iodine	n.a.	n.a.	max. 3.0	0.91	Good hardness and flexibility, high resistance to wear and abrasion, good resistance to water and household cleaning agents.
<b>Medium Oil Alkyd</b>										
SETAL 707 BA-75	75	BuAc	Tall oil fatty acids	5.0	6 Gardner	n.a.	n.a.	7.6	1.04	For high solids acid catalyzed and nitrocellulose systems.
VIALKYD AM 318/70SNA	70	SN	Special fatty acids	0.19 (60SN)	15 Iodine	3.0	801	max. 14	1.10	Excellent pigment wetting. Superior compatibility characteristics with almost any paint raw material.
VIALKYD AC 451N/70SNB	70	SN 180-210	Synthetic fatty acids	4.8	3 Iodine	4.2	572	max. 4.0	1.05	For cross-linking with amino resins to formulate stoving systems for automotive top-coats and one-coat systems for household and electrical appliances.
SETAL 196 XX-65	65	Xyl	Unsaturated fatty acids	4.8	7 Gardner	n.a.	n.a.	max. 7.9	1.01	Very fast drying and through drying properties, good yellowing resistance, gloss and gloss retention.
SETAL 199 SS-55 *	55	WS / Xyl	Unsaturated fatty acids	7.6	7 Gardner	n.a.	n.a.	max. 6.7	0.93	Good drying properties, very good body, good color, gloss retention and exterior durability.
SETAL A F 48 TB/X	55	WS / Xyl	Vegetable fatty acids	5.4	5 Iodine	1.3	2380	4.0	0.94	Fast drying, good through-drying and curing to form defect-free films, even in thick coats. Good yellowing resistance, gloss and good gloss retention. Good weather stability.
VIALKYD VAF 7109/55SNA	55	SN	Vegetable fatty acids	0.50	10 Iodine	1.5	2040	max. 6.0	1.00	Rapid initial and through drying. High gloss, outstanding yellowing resistance, excellent gloss retention and weather resistance.
VIALKYD AF 474/55WS	55	WS	Special fatty acids	0.70 (45K30S)	7 Iodine	2.0	1569	max. 8.0	0.92	Rapid initial and through drying. Superior weather resistance and color retention. Excellent resistance to motor spirits.
<b>Medium Oil Alkyd, Silicone Modified</b>										
SETAL 1601 WS-65	65	WS	Unsaturated fatty acids	2.6	4.5 Gardner	n.a.	n.a.	max. 6.7	0.96	Excellent outdoor durability, good drying.

## Solvent borne alkyd resins

Resin name	NV (%)	Solvents	Oil type	Viscosity (23°C, Pa.s)	Color (max. value)	OH - % (on solids)	HEW (as supplied)	AV as supplied (mg KOH/g)	Density (kg/dm³)	Technical features
<b>Short Oil Alkyd</b>										
SETAL® 84 XX-70 *	69	Xyl	Synthetic fatty acids	5.1	2 Gardner	3.0	820	6.4	1.07	Very good durability, excellent color and gloss retention, high body. Suitable for acid catalyzed, nitrocellulose, two-component and stoving systems.
SETAL A F 300 SN	65	SN	Mixed fatty acids	4.7	5 Iodine	3.5	740	max. 4	1.04	High body, good flexibility, good resistance to acids and waxes, excellent adhesion to various primer surfacers and, in one-coat finishes, to bare metal. Very good pigment wetting.
SETAL A F 26 X	60	Xyl	Vegetable fatty acids	2.5	5 Iodine	2.2	1300	6.5	1.02	Very rapid drying and curing, high resistance to yellowing, good weather stability and good anti-corrosion properties.
SETAL 142 XX-60	60	Xyl	Soya bean fatty acids	3.7	5 Gardner	n.a.	n.a.	6.0	1.02	Very fast drying, good elasticity and yellowing resistance (also at elevated temperature), good adhesion on steel.
SETAL A F 310 SN	60	SN	Saturated fatty acids	4.4	3 Iodine	1.8	1550	8.0	1.02	Highly reactive, high resistance to yellowing during overbaking, high body and gloss, good gloss retention and chalking resistance.
SETAL 118 XX-60	60	Xyl	Dehydrated castor oil	5.2	8 Gardner	n.a.	n.a.	9.6	1.03	Good hardness, scratch resistance, adhesion and impact resistance, good gloss retention, very good durability, excellent pigment wetting properties.
VIALKYD® AC 290/70MPAC	70	MPA / Xyl	Synthetic branched fatty acids	0.14 (50MPA)	5 Iodine	n.a.	n.a.	max. 11	1.10	Grinding resin for pigment pastes. Excellent compatibility with alkyd stoving paints, thermosetting acrylic paints, NC-lacquers, acid curing, alkyd- or acrylic-isocyanate enamels.
<b>Short Oil Alkyd, Acrylic Modified</b>										
VIALKYD AY 120/65XMPAC	65	Xyl / MPA	Vegetable fatty acids	0.42	5 Iodine	3.0	860	max. 8.0	1.01	Very rapid initial and through drying. Quick rise in hardness, long pot life. Good body, excellent gloss retention, superior weather resistance. Designed for the formulation of glossy refinish enamels and enamels for railroad coaches, busses, etc.
SETYRENE® 78 XS-55	55	BuAc / Xyl	Tall oil fatty acids	1.0	3 Gardner	0.9	3430	4.6	1.02	Fast drying, good pigment wetting properties, good compatibility.
VIALKYD AY 402/50X	50	Xyl / i-But	Linseed oil	0.72 (40Xyl)	20 Iodine	n.a.	n.a.	max. 10	0.98	Acrylic, vinyl and urethane modified. Extremely fast initial and through drying. Excellent recoatability at any time. Excellent adhesion to steel and aluminium.
<b>Short Oil Alkyd, Styrene Modified</b>										
VIALKYD AV 352M/50X	50	Xyl	Dehydrated castor oil	0.28 (40Xyl)	10 Iodine	n.a.	n.a.	max. 4.0	0.97	Rapid initial and through drying. Excellent adhesion to steel and aluminium.
<b>Short Oil Alkyd, Silicone Modified</b>										
VIALKYD TS 314/50MPWSW	50	MP / D40	Vegetable fatty acids	0.30	5 Iodine	n.a.	n.a.	7.0	0.98	Rapid initial and through drying. Adhesion on glass.

## Solvent borne polyester resins

Resin name	NV (%)	Solvents	Viscosity (23°C, Pa.s)	Color (max. value)	OH - % (on solids)	HEW (as supplied)	AV as supplied (mg KOH/g)	Density (kg/dm³)	Technical features
<b>Polyester Polyol</b>									
SETAL® 1406	100	-	3.0	80 APHA	9.4	180	max. 3.0	1.08	Low-colored reactive diluent for two-component coatings.
SETAL 1606 BA-80	80	BuAc	3.8	125 APHA	5.2	410	8.4	1.08	High build and gloss, very good outdoor durability, good mechanical properties and good chemical resistance.
SETAL 168 SS-80 *	79	BuAc / Xyl	2.4	100 APHA	4.3	500	max. 1.7	1.10	High flexibility, even at low temperatures. Good outdoor durability.
DUROFTAL® PI 2801/78BAC	78	BuAc	10	30 Hazen	7.0	313	16	1.11	High hardness, excellent solvent and chemical resistance, superior weathering stability.
DUROFTAL VPI 2803/78BAC	78	BuAc	13	50 Hazen	6.0	400	17	1.14	High hardness, high gloss and depth of image, excellent solvent and chemical resistance, superior weathering stability.
SETAL 1603 BA-78	76	BuAc	6.0	150 APHA	5.4	410	16	1.08	High build and gloss, very good outdoor durability, good mechanical properties and good chemical resistance.
SETAL D RD 181 X *	75	Xyl	7.5	150 APHA	4.9	460	max. 12	1.08	Weather resistant, good resistance to yellowing and aging, also suitable for pigment pastes.
VIALKYD® VAN 6130/75MPAC	75	MPA / Xyl	1.1	5 Iodine	6.4	356	max. 3.0	1.09	Two-component PUR furniture, kitchens, laboratories, offices and parquet lacquers with excellent abrasion resistance and excellent resistance to solvents and chemicals.
SETAL 169 SS-67	67	BuAc / Xyl	6.6	300 APHA	8.0	320	max. 2.8	1.08	Excellent outdoor durability, excellent solvent and chemical resistance.
<b>Saturated Polyester</b>									
SETAL 1703 XX-75	73	Xyl	3.6	150 APHA	3.0	780	7.6	1.05	High solids content at spraying viscosity, good hardness and gloss.
SETAL 1715 VX-74	72	SN / Xyl	5.4	50 APHA	4.4	540	8.2	1.05	Extremely good outdoor durability, no loss of gloss and no yellowing in QUV, high solids content at spraying viscosity. Good mechanical properties and chemical resistance. Broad compatibility.
VIALKYD AN 950/70X	70	Xyl	2.7	5 Iodine	3.0	800	max. 8.0	1.07	Outdoor durable, non-yellowing one coat stamping and deepdrawing coil-coating systems for aluminium, sheet steel and tin sheet.
SETAL 189 XX-65	65	Xyl	1.7	100 APHA	2.3	1140	13	1.06	High hardness, very good adhesion and flexibility, good chemical and water resistance, good compatibility with CAB and good pigment wetting.
SETAL 1671 SS-65	65	SN / BDGA / i-But / Xyl	1.2	8 Gardner	2.9	900	max. 5.9	1.05	Urethane modified. Excellent chip resistance and mechanical properties, very good appearance.
SETAL 186 SS-65	65	BuAc / Xyl	1.5	100 APHA	3.3	790	5.9	1.00	Excellent pigment wetting, good hardness, very good adhesion and flexibility, good chemical and water resistance.
SETAL 173 VS-60	60	SN / MP / Xyl	1.4	100 APHA	2.4	1180	4.8	1.04	High hardness, very good adhesion and flexibility, good chemical and water resistance.
DUROFTAL PE 912/60SNA	60	SN / MP / Xyl	1.4	5 Iodine	2.4	1180	max. 6.0	1.04	High hardness, very good adhesion and flexibility, good chemical and water resistance.
DUROFTAL VPE 6104/60MPAC	60	MPA	6.0	3 Iodine	2.7	1040	max. 3.0	1.14	Replacement of epoxy resins in phenol-epoxy-systems in order to get BADGE or Bisphenol A free paints.
<b>Saturated Polyester, silicone modified</b>									
VIALKYD VTS 1202/65MPAC	65	MPA / Xyl / n-But / Met	8.2	5 Iodine	6.0	430	max. 7.0	1.12	Excellent mechanical properties such as hardness, impact resistance and adhesion even to difficult substrates. Its silicone content has given excellent results after more than 5 years Florida exposure, with high non chalking resistance and gloss retention.

## Solvent borne epoxy resins and hardeners

Resin name	NV (%)	Solvents	Oil type	Viscosity (23°C, Pa.s)	AEW (as supplied)	EEW (as supplied)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Solvent borne Epoxy Ester</b>								
DUROXYN™ EF 900/60X	60	Xyl	DCO fatty acid	3.8	-	-	0.97	Superior adhesion. Good hardness, impact resistance and flexibility. High pigment loading, capable of high gloss. Excellent resistance to temperature, water and alkali. Used in anticorrosive paint systems and primers, zinc rich primer surfacers.
DUROXYN EF 935/60X	60	Xyl	DCO fatty acid, soya fatty acid	0.43	-	-	1.00	Very fast air drying. Excellent hardness, flexibility and adhesion. Excellent resistance to alkali, excellent color retention at elevated temperatures. Recommended for industrial bake enamels and anticorrosive primers.
<b>Solvent free, solvent borne Epoxy resin</b>								
BECKOPOX™ EP 075	100	-	n.a.	0.055	-	340	1.06	Low odor, difunctional flexibilizing reactive diluent for two-component solvent borne or 100% solids epoxy coatings.
BECKOPOX EP 116	100	-	n.a.	9.4	-	180	1.16	Solvent-free liquid non-crystallizing epoxy resin with high reactivity and good chemical and abrasion resistance. Used in solvent free coatings, adhesive and trowelling compounds, composites, casting compounds and laminates for electronics.
BECKOPOX EP 117	100	-	n.a.	1.0	-	180	1.13	Solvent-free liquid non-crystallizing epoxy resin containing reactive diluent for low viscosity. Highly loaded systems exhibit excellent tensile strength. Used in mortars for concrete repair, industrial flooring and adhesives for tiles.
BECKOPOX EP 128	100	-	n.a.	1.1	-	195	1.12	Bis-A liquid epoxy containing reactive diluent for low viscosity. Cured systems show low shrinkage and excellent resistance to chemicals, solvents and moisture. Used in abrasion resistance flooring compounds, castings, impregnations and composites.
BECKOPOX EP 140	100	-	n.a.	13	-	185	1.16	Standard liquid Bisphenol A epoxy, imparts adhesion, increased chemical resistance. Cured systems show low shrinkage. Used in abrasion resistance flooring compounds, castings, impregnations and composites.
BECKOPOX EP 151	100	-	n.a.	32	-	450	1.08	Flexibilized Bisphenol A liquid epoxy resin. Used as a plasticizing resin for improve the flexibility of epoxy resin systems. Suitable for castings needing permanent elasticity as well as castings subjected to severe vibration stresses.
BECKOPOX EP 140/80SNB	80	SN 180-210	n.a.	0.26	-	232	1.09	Standard liquid Bisphenol A epoxy diluted with organic solvent.
BECKOPOX EP 301/75X	75	Xyl	n.a.	11	-	500	1.07	Type 1 solid epoxy resin for anticorrosion primers, zinc rich paints and high durability coatings. Used in combination with polyamines for ambient curing. Can also be used to improve adhesion and chemical resistance properties of saturated polyesters or thermoset acrylics in bake systems.
BECKOPOX EM 460/60IBX	60	i-But / Xyl	n.a.	1.1	-	n.a.	1.02	Modified epoxy resin. Excellent adhesion to steel and nonferrous metals, high corrosion protection and good recoatability. Used in conjunction combination with polyvinylbutyral (PVB) for one- and two-component wash primers and weldable shop primers.
<b>Amine hardener, solvent borne</b>								
BECKOPOX EH 651/70X	70	Xyl	n.a.	1.1	255	-	0.95	Polyamidoamine hardener with long potlife, good flexibility, adhesion and chemical resistance. For both metallic and mineral substrates.
<b>Carbamide resin</b>								
RESAMIN® HF 480	100	-	n.a.	8.5	-	-	1.10	Carbamic resin based on butylurethane and formaldehyde. Plasticizing component and compatibility promoter for thermoplastic backbone coating resins (e. g. nitrocellulose, PVC copolymers, cyclized rubber, PVB), alkyd/amino bake enamels and acrylic/isocyanate combinations.
<b>Plasticized urea resin</b>								
VIAMIN® HP 366/60IBE	60	Eth / i-But / n-But / Xyl	Vegetable fatty acids	0.84	-	-	1.01	Very low formaldehyde emission, excellent through drying. Extended processing time, speedy handling. Outstanding suitability for low-pollutant one and two-component paints for industrial furniture coating and for parquet floor sealing.
<b>Moisture curing resin</b>								
BECKOCOAT® PU 428/51XMPAC	51	Xyl / MPA	n.a.	0.43	-	-	0.99	Rapid curing, radiant brilliance, superior abrasion resistance, outstanding impact resistance, excellent adhesion.
BECKOCOAT VPU 4204/40LG	40	SN / MPA / Xyl	n.a.	0.26	-	-	0.98	Rapid curing, good abrasion resistance and excellent resistance to chemicals. Contains flattening agent.
BECKOCOAT VPU 6072/38LG	38	SN / MPA	n.a.	0.10	-	-	1.00	Free TDI < 0.5 % (as supplied), rapid curing, very high gloss, excellent durability, high impact resistance and good adhesion.

## Unsaturated polyester resins

Resin name	NV (%)	Solvents	Viscosity (23°C, mPa.s)	Color (max. value)	AV as supplied (mg KOH/g)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Standard Unsaturated Polyester Resin</b>							
ROSKYDAL® 300/1	70	Sty	650	150 Apha	18	1.10	Tough but flexible, very good leveling and high scratch resistance.
ROSKYDAL 500 A	76	Sty	1800	100 Apha	15	1.12	High brilliance, little yellowing in darkness, very good leveling properties and scratch resistance, reproducible matt effects.
ROSKYDAL 502 BA	80	BuAc	4500	100 Apha	18	1.15	For monomer-free coatings in thin layers, good resistance to chemicals, solvents and yellowing in the light and dark, scratch resistant.
ROSKYDAL 550	68	Sty	1600	100 Apha	15	1.12	For the elastification of harder ROSKYDAL® types, yields permanent flexibility, improves polishing of gloss polyester systems, improves scratch resistance.
ROSKYDAL 620	69	Sty	850	100 Apha	16	1.13	High reactivity, yields hard polymers.
ROSKYDAL 850 W	100	-	12000	3 Iodine	17	1.12	Monomer-free binder, water emulsifiable.
ROSKYDAL E 65	65	Sty	600	150 Apha	12	1.11	Universal flexibilising resin with air-drying properties, also for primers, knifing- and spray fillers.
ROSKYDAL E 70	66	Sty	950	3 Iodine	12	1.12	Soft resin for the flexibilisation of all ROSKYDAL types, especially for wood/furniture coatings.
ROSKYDAL F 8100	75	Sty	2840	2 Iodine	20	1.16	Fast curing and low greening; for clear and pigmented sealers with good sandability and good leveling.
<b>Amine-accelerated Unsaturated Polyester Resin</b>							
ROSKYDAL K 14 M	64	Sty	825	15 Iodine	25	1.11	Highest reactivity; yields pale, hard polymers; very good air-drying properties, in combination with ROSKYDAL K 65 recommended for universal putties.
ROSKYDAL K 27/1	70	Sty	2200	10 Iodine	25	1.15	High reactivity, yields pale, hard polymers.
ROSKYDAL K 30	65	Sty	500	15 Iodine	12	1.12	High reactivity, medium hardness, ideal sole binder for car body repair fillers.
ROSKYDAL K 36	62	Sty	400	15 Iodine	10	1.12	High reactivity, medium hardness, ideal sole binder for car body repair fillers.
ROSKYDAL K 40 T	66	Sty	thixotropic	n.a.	10	1.12	For highly thixotropic knifing fillers, especially for use in vehicle refinishing, yields polymers of medium flexibility.
ROSKYDAL K 45	65	Sty	575	15 Iodine	10	1.15	High reactivity which is cold-curing, even around 0 °C, and yields polymers of medium flexibility.
ROSKYDAL K 58	61	Sty	500	12 Iodine	20	1.10	High reactivity, yields polymers of medium flexibility, sole binder for all automotive substrates, good adhesion properties on galvanised car panels.
ROSKYDAL K 65	67	Sty	725	10 Iodine	10	1.11	High reactivity, yields highly flexible polymers, sole binder for flexible UP-fillers, but in combination with ROSKYDAL K 14 M also suitable for universal putties.
ROSKYDAL K 68	65	Sty	750	10 Iodine	10	1.14	Medium reactivity, yields highly flexible polymers, ideal sole binder for overbaking resistant fillers.

## Hydrophobic polyol and Bisoxazolidine resins

Resin name	OH - % (on solids)	HEW (as supplied)	NV (%)	Solvents	Viscosity (23°C, mPa.s)	AV as supplied (mg KOH/g)	pH	Color (max. value)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Polyester Polyol</b>										
SETATHANE® D 1160	5.4	315	100	-	1000	1.7	n.a.	5 Iodine	0.99	High flexibility and good mechanical strength.
<b>Polyether-ester Polyol</b>										
SETATHANE D 1150	4.7	360	100	-	3500	max. 2	n.a.	5 Iodine	1.01	Tough and flexible, hard-wearing and chemical resistant.
SETATHANE D 1155	5.0	340	100	-	425	max. 2	n.a.	5 Iodine	0.99	Especially suitable for combination with SETHATANE® D 1145 and SETATHANE D 1150 in the formulation of solvent-free, self-leveling polyurethane coatings of low viscosity.
SETATHANE D 1145	7.1	240	100	-	2950	max. 2	n.a.	5 Iodine	1.01	Hard to tough but flexible films which are resistant to abrasion and chemicals.
<b>Polyol Emulsion</b>										
SETATHANE D E 2761	3.6	680	70	WA	250	n.a.	7.0	n.a.	0.99	Very good thermal-shock resistance and resistance to organic and inorganic acids, alkalis and solvents.
SETATHANE D E 2656	4.3	565	70	WA	250	n.a.	7.0	n.a.	0.97	Very good resistance to organic and inorganic acids, alkalis and solvents.
SETATHANE D E 2767	18	110	90	WA	1200	n.a.	6.5	n.a.	1.00	Outstanding resistance to organic and inorganic acids, alkalis and solvents.
<b>Urethane Bisoxazolidine</b>										
SETA® H 2959	-	330 (NH)	100	-	3000	n.a.	n.a.	4 Iodine	1.07	Latent hardener for polyisocyanates in one-component polyurethane systems in outdoor areas; homogeneous and blister-free hardening of coatings.

## Rheology control resins

Resin name	Thix index	Viscosity 1/s (23°C, Pa.s)	Viscosity 1000/s (23°C, Pa.s)	NV (%)	Solvents	OH - % (on solids)	HEW (as supplied)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Acrylic Polyol, SCA modified</b>									
SETALUX® 91767 VX-60	5.0	6.0	1.2	60	SN / Xyl	4.5	630	1.00	Excellent anti-sagging effect, good appearance, adhesion, durability, chemical and petrol resistance and excellent application properties.
SETALUX 81198 SS-55 YA	7.3	4.0	0.55	55	BuAc	4.0	770	1.00	High build and gloss, high sagging limit, fast drying, excellent mechanical properties and chemical resistance, good clarity after drying at room temperature, high end hardness and good adhesion results on metallic basecoats.
<b>ThermoSetting Acrylic, SCA modified</b>									
SETALUX 91795 VX-60	7.2	3.8	0.53	60	SN / Xyl	4.5	630	0.98	Excellent appearance (DOI, flow), excellent application properties, good sagging limit, good outdoor durability, good mechanical properties, good solvent and acid resistance.
SETALUX 91757 VX-60	9.4	8.5	0.90	60	SN / Xyl	3.6	790	0.99	Excellent gloss, good mechanical properties, solvent and acid resistance, good adhesion and excellent accelerated weathering test, good sagging limit, excellent application properties.
SETALUX 91756 VS-60	12	14	1.2	60	SN / BuAc	2.7	1050	0.97	High solids content at spraying viscosity, excellent hardness, very good filling power and gloss, good outdoor durability, good chip resistance, very good petrol and solvent resistance, very good acid resistance, good sagging limit.
SETALUX 91795 VX-60 YB	18	12	0.65	60	SN / Xyl	4.5	630	0.98	Excellent appearance (DOI, flow), excellent application properties, excellent sagging limit, good outdoor durability, good mechanical properties, good solvent and acid resistance.
<b>Polyester Polyol, SCA modified</b>									
SETAL® 81462 SS-55	16	2.8	0.18	54	BuAc / Xyl	5.4	580	1.04	Good anti-sag property with good leveling and clarity after drying at increased or ambient temperature. Good outdoor durability, mechanical properties and excellent yellowing resistance.
SETAL 82166 SS-64 *	16	6.2	0.40	63	BuAc / Xyl	5.4	500	1.05	Good anti-sag property with good leveling and clarity after drying at increased or ambient temperature. Good outdoor durability, excellent mechanical properties.
<b>Saturated Polyester, SCA modified</b>									
SETAL 91703 SS-53	10	3.1	0.30	52	SN 150 / Xyl	3.0	1090	0.98	Prevents sagging of higher solids systems without effect on the gloss of the system.
SETAL 90173 SS-50	40	20	0.50	50	SN / MP	2.4	1420	0.97	Good compatibility with CAB, excellent rheology control, good metallic effect, good adhesion and flexibility.
SETAL 91715 SS-55	64	14	0.22	52	Xyl / SN	4.3	760	0.94	Excellent anti-sagging effect, extremely good outdoor durability, high solids content at spraying viscosity, good mechanical properties and chemical resistance.
<b>Long Oil Alkyd, thixotropic modified</b>									
SETAL 50293 HD-85 YA	n.a.	n.a.	n.a.	85	D60	n.a.	n.a.	0.90	Almost insensitive to higher temperatures and presence of polar solvents. Very high solids content.
VIALKYD® AS 6140SCA/49SD60	n.a.	n.a.	0.24 (at 10,000/s)	49	D60	n.a.	n.a.	0.91	Liquid pumpable thixotropic urethane alkyd based on soya bean oil, which can be used as sole binder or in combination with other alkyds for decorative paints and wood stains.
<b>Pseudoplastic Acrylic Dispersion</b>									
SETAQUA® 6801	100	22	0.22 (at 500/s)	24	WA	n.a.	n.a.	1.02	Pseudoplastic after neutralization, good aluminium orientation, good atomisation, insoluble in organic solvents, excellent stability. Low co-solvent demand.
SETAQUA 6803	107	32	0.30 (at 500/s)	24	WA	0.8	8850	1.03	Pseudoplastic after neutralization, good aluminium orientation, good atomisation, insoluble in organic solvents, excellent stability. High hardness. For stoving systems.
SETAQUA 6802	162	65	0.40 (at 500/s)	24	WA	1.2	5900	1.03	Pseudoplastic after neutralization, good aluminium orientation, good atomisation, insoluble in organic solvents, excellent stability. High hardness.

All products are APEO free unless specifically mentioned otherwise.





## Water borne acrylic polyol resins

Resin name	OH - % (on solids)	HEW (as supplied)	NV (%)	Solvents	Viscosity (23°C, Pa.s)	AV as supplied (mg KOH/g)	pH	Density (kg/dm <sup>3</sup> )	Technical features
<b>Acrylic Polyol Dispersion</b>									
SETAQUA® 6522	2.4	1690	42	WA	n.a.	48	7.5	1.00	Fast drying. Can be used in combination with acrylic emulsions for two-component.
<b>Acrylic Polyol Emulsion</b>									
MACRYNAL® SM 6817w/44WA	3.0	1290	44	WA / BP	1.6	12	7.8	1.06	Low NCO demand. Fast drying two-component topcoats with excellent applicability and appearance.
MACRYNAL VSM 6285w/43WABDG	3.3	1190	43	WA / BDG	1.2	max. 15	8.8	1.05	High quality two-component topcoats with excellent application properties, good drying and very good gloss.
SETAQUA 6515	3.3	1140	45	WA / BG / SN	1.2	9.9	8.0	1.05	High durability, good abrasion- and chemical resistance, compatible with hydrophobic polyisocyanates.
SETAQUA 6514	3.5	1210	40	WA / PnP	0.5	9.6	8.5	1.06	Butyl glycol free, fast drying, good durability, abrasion- and chemical resistance.
SETAQUA 6516	3.5	1210	40	WA / BG	0.6	9.6	8.5	1.06	Fast drying, good durability, abrasion- and chemical resistance.
MACRYNAL SM 6810w/42WA	4.1	990	42	WA / BP	1.6	8.2	8.5	1.05	High quality two-component topcoats with excellent applicability and appearance. Excellent popping resistance, longer open time than MACRYNAL® VSM 6299w/42WA.
MACRYNAL VSM 6299w/42WA	4.1	990	42	WA / SN / BG	2.4	10	7.8	1.06	High quality two-component topcoats with excellent hardness development at room temperature drying and very good gloss. Great balance of dry time and flow/leveling.
MACRYNAL SM 6825w/37WA *	4.2	1080	37	WA / MP	0.4	16	8.1	1.05	High quality two-component clear- and topcoats providing very good chemical resistance and excellent drying properties.
MACRYNAL VSM 2521w/42WAB	4.2	950	42	WA / nBut	0.70	8.2	7.8	1.04	High quality clear coats and top coats for wood and metal substrates with excellent resistance to chemicals, high hardness, high abrasion resistance and excellent drying properties.
SETAQUA 6510	4.2	960	42	WA / BG	0.60	8.8	8.0	1.05	Good durability, abrasion- and chemical resistance.
SETAQUA 6511	4.2	860	47	WA / BG	0.60	7.6	8.0	1.04	Good appearance, good durability, abrasion- and chemical resistance.
SETAQUA 6513	4.2	920	44	WA / PnP	0.50	7.1	8.0	1.04	Butyl glycol free, good appearance, good durability, abrasion- and chemical resistance.
MACRYNAL SM 6826w/43WA	4.4	900	43	WA	0.66	max. 6.4	7.5	1.06	Very high dry film thickness (>150 µm) without defects. Fast surface drying, shear stable with high pigment loading possible. For top quality two-component polyurethane coatings, in particular primer surfacers/fillers and matte topcoats and clear coats.
<b>Thermosetting Water borne Acrylic Resin</b>									
VIACRYL® SC 6807w/43WA	2.3	1740	43	WA / DPM	1.2	18	8.5	1.05	For use in combination with reactive amino crosslinkers such as CYMEL® 327 for high gloss, non yellowing industrial bake systems with excellent leveling properties.
SETAQUA 6160	2.6	1450	45	WA / BG	n.a.	8.6	8.2	1.04	High gloss, excellent chemical resistance and durability. Combine with SETALUX® 6100 GR-68.
VIACRYL VSC 6273w/44WA	2.6	1500	44	WA / DPM / i-Pro	1.3	15	8.6	1.04	High gloss, good outdoor durability and low yellowing. For use in combination with HMMM type amino crosslinkers such as CYMEL 303 for bake enamel systems.
VIACRYL VSC 6276w/44WA	2.6	1500	44	WA / DPM / i-Pro	1.3	15	8.6	1.04	For use with reactive melamine resins such as CYMEL 325 or CYMEL 327 to give low yellowing industrial coating systems with good gloss.
VIACRYL VSC 6800w/47WA	3.0	1195	47	WA	1.2	12	8.5	1.06	For use in combination with reactive amino crosslinkers such as CYMEL 327 for high gloss, non yellowing industrial bake systems.

All products are APEO free unless specifically mentioned otherwise.

## Water borne acrylic resins

Resin name	MFFT (approx.) (°C)	NV (%)	Solvents	Viscosity (23°C, Pa.s)	pH	Density (kg/dm <sup>3</sup> )	Technical features
<b>Thermoplastic Acrylic Dispersion</b>							
SETAQUA® 6405	17	40	WA	n.a.	6.5	1.05	Excellent flow, excellent penetration of hard wood, good stainblocking properties, very good sandability in primers.
SETAQUA 6411	20	40	WA	n.a.	7.5	1.05	Excellent penetration of soft wood, good stain blocking properties.
VIACRYL® VSC 6279w/45WA	25	45	WA	0.94	8.1 (10WA)	1.04	Excellent compatibility with alkyd resin emulsions. High shear stability. Fast drying. Excellent non yellowing properties and outdoor durability. Recommended for rapid drying anticorrosion primers and decorative finishes.
VIACRYL VSC 6265w/40WA	26	40	WA	0.85 (25°C)	8.5 (10WA)	1.05	Excellent compatibility with alkyd resin emulsions. High shear stability. Extremely quick set and through drying. High yellowing and weather resistance. Recommended for quick drying anticorrosion primers and topcoats. Due to its good sandability, this grade is also suitable for wood primers. Contains APEO.
VIACRYL VSC 6254w/40WA	45	40	WA	0.14 (25°C)	8.5 (10WA)	1.04	Mainly suitable in combinations with alkyd emulsions and hydroxy functional copolymer dispersions in order to improve the physical drying properties.
SETAQUA 6406	64	40	WA	n.a.	7.0	1.04	Fast drying and good blocking resistance.
<b>Self-Crosslinking Acrylic Dispersion</b>							
SETAQUA 6773	max. 5	44	WA	n.a.	8.8	1.04	Good wood tannin blocking. Good adhesion on bare wood and old alkyd paints.
SETAQUA ECO 6794	max. 5	40	WA	max. 0.27	8.5	1.04	Excellent outdoor durability, good flow and open time, low water uptake.
SETAQUA 6776	8	44	WA	n.a.	8.9	1.05	High gloss, good appearance, good application properties and blocking resistance, good early water resistance.
VIACRYL SC 6827w/46WA	10	46	WA	max. 0.15	4.2	1.06	Formaldehyde-free epoxy modified. Good adhesion to metal and non metal substrates. Excellent chemical resistance against alkalines and detergents. Very good thermal stability. For monocoat, primer and topcoat application.
VIACRYL VSC 6286w/45WA	11	45	WA	0.30	7.2	1.05	Sole binder for non yellowing decorative paints, woodstains and for industrial applications.
SETAQUA ECO 6778	26	44	WA	n.a.	8.8	1.04	High durability, good blocking resistance.
VIACRYL VSC 6295w/45WA	30	45	WA	0.07	7.2	1.05	Fast drying and high hardness. Excellent sandability, chemical resistance and abrasion resistance. Sole binder for water borne wood coatings.
VIACRYL SC 6805w/50WA	48	50	WA	0.60	7.7	1.05	Extremely quick set and through drying. Very high film hardness. Excellent non-yellowing properties.
<b>Self-Crosslinking Acrylic Dispersion, surfactant free</b>							
SETAQUA 6774	max. 5	43	WA	n.a.	8.0	1.05	High durability, translucent, good flexibility.
SETAQUA 6782	11	40	WA	max. 0.27	8.5	1.04	Fast drying, good hardness and blocking resistance, good adhesion, good chemical resistance and good outdoor durability.
SETAQUA 6756	15	40	WA	max. 0.72	8.0	1.04	Excellent hardness, fast drying and good sandability and exceptional chemical resistance, good in-can clarity and a solvent borne like film appearance.
SETAQUA 6768	18	40	WA	max. 1.0	8.5	1.03	Very good adhesion, fast drying, good blocking resistance and good hardness, good chemical resistance, good outdoor durability.
SETAQUA 6781	22	44	WA	0.75	8.8	1.04	High gloss, good appearance, good application properties and excellent blocking resistance.
SETAQUA 6784	23	44	WA	max. 1.0	8.8	1.04	Good flexibility and high durability. Especially developed to give excellent response to low amounts of associative thickeners and exhibits excellent viscosity stability.
SETAQUA 6771	27	44	WA	0.30	9.0	1.05	High gloss, good appearance, good application properties and wood tannin blocking.
SETAQUA ECO 6788	40	41	WA	1.0	8.2	1.03	Excellent hardness, fast drying and good sandability, exceptional chemical resistance, good in-can clarity and a solvent-borne like film appearance.
SETAQUA 6754	58	40	WA	max. 0.15	9.0	1.05	Good hardness, gloss, chemical and blocking resistance.
<b>Special Acrylic Dispersion</b>							
SETAQUA 6302	max. 5	50	WA	2.0	8.0	1.03	Excellent flow, leveling and gloss, fast build up of hardness and water resistance, outstanding adhesion, hardness, gloss and water resistance. Outstanding high shear stability; can be used as a grinding medium.
SETAQUA 6376	50	50	WA	n.a.	8.0	1.03	Very efficient pigment dispersing resin, gives fast cohesive strength, water resistance development and improved chemical resistance, including coffeestain resistance.
SETAQUA 6301	min. 60	40	WA	max. 0.1	5.0	1.04	Additive resin to improve hardness and drying speed. Improves block-resistance, sandability and stackability at addition levels of 10 - 20 weight%.
<b>Acrylic two-component NCO free</b>							
SETAQUA 8455	n.a.	36	WA / PGMME	n.a.	9.8	1.05	Amine functional acrylic emulsion (AEW = 655 g/eq as supplied). Use in combination with SETAQUA® 8554. Low co-solvent content, fast drying and excellent water resistance.
SETAQUA 8554	n.a.	50	WA	n.a.	n.a.	1.05	Epoxy functional acrylic dispersion (EEW = 621 g/eq as supplied). Co-solvent free. Use in combination with SETAQUA 8455. Gives fast drying and good water resistance.

All products are APEO free unless specifically mentioned otherwise.

## Water borne acrylic copolymer resins

Resin name	MFFT (approx.) (°C)	NV (%)	Solvents	Viscosity (25°C, Pa.s)	pH at 10% solids	Neutralization	Technical features
<b>Water borne Acrylic Emulsion</b>							
UCECRYL® B 1181	2	48	WA	600	7.5	NH3	Low MFFT straight acrylic emulsion copolymer. Suitable for fresh concrete, very low water uptake with very good resistance to efflorescence. For use in clear coats with excellent water resistance.
UCECRYL B 746	2	50	WA	1100	8.5	NH3	Low MFFT styrene acrylic emulsion copolymer recommended for use in high PVC coatings for concrete tiles. Suitable for fresh concrete. Excellent durability. May be used as co-binder to improve flexibility and durability. Contains APEO.
UCECRYL BMR 47	2	55	WA	250	8.5	NH3	Low MFFT straight acrylic emulsion copolymer with excellent adhesion to metals, recommended for use in high solids primers with low water uptake and for metal basecoats.
UCECRYL B 1190	3	49	WA	450	8.2	NaOH	Low MFFT straight acrylic emulsion copolymer with high durability. Ammonia free. Recommended in paints for concrete tiles with good weathering resistance. Contains APEO.
UCECRYL B 976	3	48	WA	265	9.0	NH3	Low MFFT straight acrylic emulsion copolymer for clear and pigmented coatings with excellent water resistance.
UCECRYL B 3022	12	44	WA	600	8.8	NH3	Medium MFFT straight acrylic emulsion copolymer with good resistance to water whitening. For formulating low VOC (<50g/l), semi-transparent vertical stains on multiple wood species with good durability, wet adhesion, low water uptake and efficient thickener response.
UCECRYL B 983	17	48	WA	650	8.5	NH3	Medium MFFT straight acrylic emulsion copolymer with very low water uptake and good resistance to efflorescence. For clear and pigmented coatings with excellent water resistance. Contains APEO.
UCECRYL B 3016	18	43	WA	max. 500	8.5	NH3	Medium MFFT straight acrylic emulsion copolymer. Topcoat for metal roof tiles with a very good resistance to water whitening and a low water absorption.
UCECRYL B 3010	19	48	WA	305	9.2	NH3	Medium MFFT straight acrylic emulsion copolymer. Provides excellent durability, low water uptake and resistance to efflorescence on fiber cement, concrete and clay tiles (when used with a primer).
UCECRYL B 3014	30	47	WA	max. 500	8.2	NaOH	Medium MFFT straight acrylic emulsion copolymer. Clear and pigmented coatings with excellent water resistance.
UCECRYL B 1009	41	48	WA	500	8.5	NH3	High MFFT straight acrylic emulsion copolymer. Recommended for Hydrophobic paints for fiber-cement sheets. Contains APEO.
UCECRYL B 3009	47	48	WA	max. 200	8.0	NaOH	High MFFT straight acrylic emulsion copolymer. Recommended for use in paints for fiber cement sheets with good weathering resistance and a good water repellency. Ammonia free.
UCECRYL B 3025	55	50	WA	max. 200	8.5	NH3	High MFFT styrene acrylic emulsion copolymer. Recommended for use in concrete floor coatings and renovation paints for metal siding.

All products are APEO free unless specifically mentioned otherwise.

## Water borne alkyd and polyester resins

Resin name	NV (%)	Solvents	Type of modification	Oil lenght %	Viscosity (23°C, Pa.s)	pH	Neutralization	Density (kg/dm <sup>3</sup> )	Technical features
<b>Water borne Alkyd - Air Drying</b>									
RESYDROL® AY 241w/40WA	40	WA / BG	Acrylic	24	3.5	8.8	NH3	1.02	Extremely rapid initial drying. Excellent through-hardening, high film hardness. Very good water resistance. Sole binder for primers or a partner for other RESYDROL resins to improve drying behavior.
RESYDROL AY 334w/40WA	40	WA / BG	Acrylic	35	12	9.2	TEA / DMEA	1.04	Rapid drying and good drying stability. High gloss. Excellent water and weather resistance. Good resistance to yellowing.
RESYDROL AY 430w/42WA	42	WA / BG	Acrylic	44	8.5	8.2	NH3	1.03	Very rapid drying, good brushability, high gloss and good weather resistance. For decorative paints on wood and metal.
RESYDROL AY 466w/38WA	38	WA / BG	Acrylic	46	8.0	8.2	NH3	1.03	Rapid initial and through-drying. High gloss. Excellent water and weather resistance. Good storage and drying stability.
RESYDROL AY 586w/45WA *	45	WA	Acrylic	58	7.5	8.0	NH3	1.02	Sole binder for water borne decorative paints, exterior wood stains and industrial finishes. Low particle size that shows good wood penetration, provides good durability.
RESYDROL AY 6150w/45WA	45	WA / BP	Acrylic	35	1.2	8.6	NH3	1.05	Designed for the production of air drying, water borne one-component topcoats, multi-purpose primers and monolayers. Quick drying, good hardness development, high gloss and corrosion protection, good adhesion on various substrates and very good recoatability at any time.
RESYDROL VAY 6096w/39WA	39	WA / BG	Acrylic	32	5.0	7.5	NH3	1.04	Very quick drying, high film hardness, good gloss in decorative top coats. High water resistance and outdoor durability. Recommended as sole binder in fast drying industrial coating systems.
RESYDROL VAY 6278w/45WA	45	WA	Acrylic	15	0.28	8.2	NH3	1.03	Quick drying, low yellowing. Use as a sole binder for decorative primers and topcoats or as a blending resin to improve drying properties.
RESYDROL AY 6705w/44WA	44	WA	Acrylic	35	0.55	8.5	NH3	1.03	Exhibits very good durability and fast dry when used as a vertical or horizontal stain. Can be used alone or in combination with other w/b resins for decorative paints, exterior wood stains and industrial finishes.
RESYDROL AZ 6191w/42WA	42	WA	Acrylic / urethane	44	1.4	8.6	TEA	1.05	Excellent drying and hardness development. Shear stable, high gloss, great flow and leveling, high color retention for indoor and outdoor applications.
RESYDROL AZ 6710w/41WA	41	WA	Acrylic / urethane	29	0.75	8.5	NH3	1.02	Sole binder for (trim) paints, primers and wood-stains. Good penetration, good open time drying balance, good weathering resistance.
RESYDROL AZ 6711w/40WA	40	WA	Acrylic / urethane	40	4.0	8.5	NH3	1.02	Sole binder for paints, primers and wood-stains. Also for combinations with long oil alkyd emulsions, like RESYDROL AY 586w, or water borne, modified oils, like RESYDROL VAL 5547w, or acrylates, like UCECRYL® B 3022, for interior and exterior applications for woodstains, (trim) paints and primers.
RESYDROL VAX 6050w/40WA	40	WA / BG	Epoxy / acrylic	32	4.2	8.7	DMEA	1.03	Quick physically set-drying and curing. High corrosion resistance and excellent adhesion after water immersion. Good pigment wetting and shear stability. Sole binder for anticorrosion primers.
RESYDROL VAX 6267w/40WA	40	WA	Epoxy	7	1.2	8.5	TEA / DMEA	1.04	Extremely fast physical initial drying and good oxidative through drying. High water and corrosion resistance. Excellent adhesion to steel, aluminum and galvanized steel as well as to clay and terracotta tiles. Suitable for both anticorrosion primers on metal and for tile roofing primers.
RESYDROL VAF 6111w/60WA	60	WA	Fatty acid	40	9.5	7.8	Partially neutralized	1.07	A high solid, low yellowing, blending resin to improve open time, provides adhesion to chalky substrates and can help achieve higher gloss while being free of amine and ammonia. Not shear stable.
RESYDROL VAS 6110w/68WA	68	WA	Fatty acid	61	1.2	7.8	Partially neutralized	1.04	Excellent penetration properties and is therefore especially suitable as sole binder for wood stains.
SETAQUA® 6006	52	WA	Urethane	24	0.36	7.4	TEA	1.09	Aromatic modification. Very fast drying, excellent stain blocking and wood penetration.
SETAQUA 6407	26	WA / BG	n.a.	n.a.	4.4	8.2	DMEA	1.04	Good pigment wetting, good stabilisation of aluminium pigments, improves film forming and flow.
SETAQUA B B 130	30	WA	Non-saponifiable polymer	n.a.	2.3	8.8	NH3 / TEA	1.00	Good anti-corrosion properties, water resistance and adhesion to non-ferrous metals and various plastic surfaces.
SETAQUA B B 2624	30	WA	Non-saponifiable polymer	n.a.	2.3	8.8	NH3 / TEA	1.00	Outstanding anti-corrosion properties, water resistance and adhesion to non-ferrous metals and various plastic surfaces.
<b>Water borne Alkyd - Baking</b>									
RESYDROL AF 502w/35WA	35	WA	Fatty acid	52	1.0	8.2	DMEA	1.03	Excellent pigment wetting, excellent application properties for high bodied bake systems in one coat and decorative finishes.
RESYDROL AM 224w/40WA	40	WA / MPP	Fatty acid	22	0.40	8.2	DMEA	1.07	Very good pigment wetting. Excellent application properties. For bake primers, one coat and decorative industrial finishes.
RESYDROL VAZ 6600w/36WA	36	WA / MPP	Urethane / Polyester	n/a	0.45	7.5	DMEA	1.06	Very high film hardness and elasticity, very good gloss, excellent chemical resistance, excellent adhesion to steel or CED primers, very good stone chip resistance.
<b>Water borne Polyester - Baking</b>									
RESYDROL AX 906w/35WA	35	WA / MPP	Epoxy	n/a	6.5	8.0	DMEA	1.06	Outstanding anticorrosive properties, excellent pigment wetting, high reactivity, very good storage stability. Good balance of hardness and flexibility. For water borne corrosion-resistant dipping and spray primers and high-grade finishes for industrial applications.
RESYDROL VAX 5538w/50WA	50	WA	Epoxy	n/a	4.5	7.2	DMEA	1.12	Modifier resin for water borne primer-surfacers to improve adhesion (e.g. to PVC) and corrosion resistance.

All products are APEO free unless specifically mentioned otherwise.

## Water borne alkyd and polyester resins

Resin name	NV (%)	Solvents	Type of modification	Oil lenght %	Viscosity (23°C, Pa.s)	pH	Neutralization	Density (kg/dm <sup>3</sup> )	Technical features
<b>Water borne Polyester - Baking (continued)</b>									
RESYDROL® AY 5537w/35WA	35	WA / DPM	Acrylic	n.a.	2.3	8.4	DMEA	1.06	Good weathering resistance. Bake enamels stand out because of their high film hardness balanced with extraordinary good flexibility, excellent water and solvent resistance. The adhesion to substrates like iron, aluminum, brass, copper and to galvanized surfaces is very good.
RESYDROL AZ 6608w/43WA	43	WA / NMP / MP	Urethane	n.a.	0.80	8.0	DMEA	1.08	Extraordinary good stone chip resistance, excellent thermal yellowing stability (up to 200 °C), good gloss. Recommended for flexible bake enamels and as a modifier resin to improve stone chip resistance of water borne basecoats and primer surfacers.
RESYDROL AZ 6680w/43WA	43	WA / MP	Urethane	n.a.	0.80	8.0	DMEA	1.08	NMP free. Extraordinary good stone chip resistance, excellent thermal yellowing stability (up to 200 °C), good gloss. Recommended for flexible bake enamels and as a modifier resin to improve stone chip resistance of water borne basecoats and primer surfacers.
RESYDROL AZ 541w/42WA	42	WA / TPG	Urethane	n.a.	1.5	7.8	DMEA	1.07	Primer surfacers have excellent processing properties and resistance against stone chipping, even at higher layer thickness of top coat.
SETAQUA® B E 270	70	WA / BDG	n.a.	n.a.	12	8.0	DMEA	1.10	Good hardness, flexibility and adhesion. High stone chip resistance.
SETAQUA B E 356	56	WA / DEGBE	n.a.	n.a.	9.5	8.6	DMEA	1.00	Extremely good resistance to hydrolysis.
<b>Water Reducible Alkyd - Air Drying</b>									
RESYDROL AX 237w/70BG	70	BG	Epoxy	23	11	n.a.	not neutralized	1.02	Sole binder for air drying corrosion protection coatings. In combination with suitable melamine resins also for stoving systems and with polymer emulsions for air drying coatings for wood and plastic.
RESYDROL VAL 5547w	98	n.a.	n.a.	62	1.2	6.5	not neutralized	1.02	Water dilutable without the need for neutralization agents. Very high penetration into the wood and is compatible with alkyd dispersions. Great for wiping stains.
SETAL® 6306 SS-60	60	BG	n.a.	n.a.	2.0	n.a.	not neutralized	1.04	Watersoluble after neutralisation, good pigment wetting, good stabilisation of aluminium pigments, improves film forming and flow. Suitable for use in two-component polyisocyanate systems (HEW=1050 as supplied).
<b>Water Reducible Alkyd - Baking</b>									
RESYDROL AM 420w/66BPWA	66	WA / BP / n-But	Bisphenol resol carboxylic acid	37	2.0	7.5	TEA	1.07	Sole binder for stoving primers and finishes. Dipping and flow coating paints. Excellent adhesion resistance, superior flexibility and corrosion resistance, excellent hardness.
RESYDROL VAF 5540w/70MP	70	MP	n.a.	11	0.42	n.a.	Not neutralized	1.10	Good pigment wetting, Excellent mechanical properties, Very good storage stability. Additional resin for water dilutable primer surfacers to improve leveling.
RESYDROL AX 246w/70BG	70	BG	Epoxy	22	16	n.a.	DMEA	1.08	Excellent pigment wetting. Outstanding anticorrosive properties. High reactivity, very good storage stability. Used for water borne corrosion resistant dipping and spray primers for low bake temperatures. High-grade water borne finishes for industrial applications.
RESYDROL AX 247w/70BGMP	70	BG / MP	Epoxy	22	13	n.a.	Not neutralized	1.08	Excellent pigment wetting. Outstanding anticorrosive properties. High reactivity, very good storage stability. Used for water borne corrosion resistant dipping and spray primers for low bake temperatures. High-grade water borne single-coat finishes for industrial applications.
RESYDROL AX 250w/75EP	75	EP / BG	Epoxy	20	0.50 (50MP)	n.a.	DMEA	1.09	Excellent pigment wetting, high corrosion protection, very good reactivity with melamine resins. As combination partner for stoving systems to increase reactivity and improve corrosion protection.
RESYDROL VAX 5227w/55LG	55	WA / n-But / MP / BG / MPP	Epoxy	n.a.	0.30	8.0	DMEA	1.05	Very good corrosion resistance. For the formulation of automotive primer surfacers. Improved reactivity, pigment wetting and corrosion protection as well as high build film thickness.
<b>Water Reducible Polyester - Baking</b>									
DUROFTAL® PE 6607/60BGMP	60	BG / MP	None	n.a.	1.2	n.a.	Not neutralized	1.10	Replacement of epoxy resins for interior and exterior coatings for metal packaging goods (can coating). When combined with phenolic resins or amino resins, these lacquers neither contain BADGE, nor Bisphenol A.
RESYDROL AN 6481w/70BBP	70	n-But / BP	Polyester	n.a.	1.5	n.a.	Not neutralized	0.99	Co-binder in combination with melamine resins and/or polyurethane dispersions for formulation of water dilutable industrial paints, e. g. base coats.
RESYDROL AN 6617w/65MPP	65	MPP	Polyester	n.a.	5.5	7.5	DMEA	1.09	Crosslinked with either Melamines or Isocyanates provides highly elastic coatings, especially recommended for Soft-Feel-coatings.
RESYDROL AN 6618w/70BG	70	BG	None	n.a.	8.5	7.8	DMEA	1.07	Excellent adhesion on different metals, for outstanding pigment wetting and gloss, for excellent mechanical properties and good yellowing resistance even at high curing temperatures.

All products are APEO free unless specifically mentioned otherwise.

## Water borne epoxy resins and hardeners

Resin name	NV (%)	Solvents	Viscosity (23°C, Pa.s)	AEW (as supplied)	EEW (as supplied)	pH	Density (kg/dm <sup>3</sup> )	Technical features
<b>Amine Hardener for Epoxy Resin and Dispersion</b>								
BECKOCURE™ EH 2100w/44WA	44	WA	1.0	570	-	9.5	1.07	To be used with Liquid Epoxies and /or Epoxy Dispersions (perfect compatibility). Free of volatile amines. Fast drying time / return to service.
BECKOCURE EH 2260w/41WA	41	WA	1.0	1000	-	9.0	1.06	Easy Cure System - low viscosity hardener, very fast drying, high sag resistance. Free of volatile amines. Combine with BECKOPOX™ EP 2384w or BECKOPOX EP 387w for easy handling and application with fast return to service for metal applications.
BECKOPOX EH 613w/80WA	80	WA	27	145	-	-	1.10	Aliphatic polyamine adduct, fast drying, highly reactive hardener. Good anti-corrosion performance and high chemical resistance. Can be used alone or in combination with other hardeners to modify drying and pot life properties. For both metallic and mineral substrates.
BECKOPOX EH 623w/80WA	80	WA	16	200	-	-	1.10	Aliphatic polyamine adduct with medium reactivity with a good balance of drying time and long pot life. Workhorse hardener for mineral substrates.
BECKOPOX EH 659w/50WA	50	WA	19	215	-	-	1.03	Extremely low reactive aliphatic polyamine adduct with slow drying and very long pot life. Can be used alone or in combination with other hardeners to modify drying and pot life properties. For both metallic and mineral substrates.
BECKOPOX VEH 2106w/80WA	80	WA	18	142	-	-	1.08	Aliphatic polyamine adduct, visual end of pot life with increase of viscosity resp. gelation. Used as a combination partner with other hardeners to allow potlife indication. For both metallic and mineral substrates.
BECKOPOX VEH 2177w/80WA	80	WA / i-Pro	9.5	175	-	-	1.10	Aliphatic polyamine adduct : 'More reactive than BECKOPOX EH 623w and is especially suited for coatings on mineral substrates together with BECKOPOX EP 384w.
BECKOPOX VEH 2188w/55WA	55	WA / PE	10	380	-	-	1.08	Hydrophobic aliphatic polyamine adduct, free of volatile amines, low reactivity and long pot life. Allows for excellent corrosion performance without the need for active pigments.
BECKOPOX EH 2189w/50WA	55	WA	0.045	138	-	-	1.09	Highly reactive polyamine adduct hardener for waterbased two-component epoxy coatings on metallic substrates. Very fast drying and fast throughcuring coatings, excellent anticorrosion properties on pre-treated substrates.
BECKOPOX VEH 2849w/80WA	80	WA	22	134	-	-	1.09	Aliphatic polyamine adduct, fast drying, highly reactive hardener. Used for anticorrosion primers with excellent water and corrosion resistance. Good for thick film applications and zinc rich primers.
<b>Water borne One-component Epoxy Resin</b>								
BECKOPOX EM 2120w/45WA	45	WA	0.50	n.a.	n.a.	-	1.07	Cationic epoxy-amine adduct dispersion for metallic coatings, excellent corrosion resistance, fast hardness development.
<b>Water borne Epoxy Resin and Dispersion</b>								
BECKOPOX EP 122w	100	-	0.80	-	195	-	1.11	Emulsifiable, non-crystallizing Bis-A/Bis-F liquid epoxy resin with reactive diluent for low viscosity. Used for concrete coatings, joint compounds, tile adhesives and hydraulic epoxy mortars. Contains APEO.
BECKOPOX EP 147w	100	-	1.1	-	194	-	1.17	Water emulsifiable Bis-A/Bis-F, non-crystallizing, liquid epoxy. High abrasion resistance, good chemical resistance and corrosion protection. Combine with solid epoxy dispersions to improve penetration into concrete and chemical resistance. Used for coatings on metallic and mineral substrates, adhesives and water-washable joint compounds for tile.
BECKOPOX EP 384w/53WAMP	53	WA / MP	0.58	-	980	-	1.10	Shear stable type 1 epoxy dispersion, fast drying, good hardness, for both metal and concrete applications.
BECKOPOX EP 386w/52WA	52	WA / PE	0.90	-	1000	-	1.08	Flexibilized type 1 epoxy dispersion with good shear stability. Excellent corrosion resistance. Best product to use when flexibility and adhesion to difficult substrates are required. Designed for metallic substrates. Can also be used on concrete in combination with liquid epoxy resin.
BECKOPOX EP 387w/52WA	55	WA / MP	0.90	-	1000	-	1.08	Flexibilized epoxy dispersion with excellent corrosion resistance. Developed to optimize formulation cost and performance. Designed for metallic substrates. Can also be used on concrete in combination with liquid epoxy resin.
BECKOPOX EP 2307w/45WAMP	45	WA / MP	1.0	-	4400	-	1.08	High-molecular epoxy resin (Type 7) dispersion. In combination with suitable crosslinkers, it is possible to formulate stoving enamels with excellent chemical and heat sterilisation resistance. Provides good adhesion and corrosion performance.
BECKOPOX EP 2340w/56WA	56	WA	0.45	-	430	-	1.10	A-liquid epoxy resin, modified, emulsified in water for coatings on mineral and metal substrates
BECKOPOX EP 2350w/60WA	60	WA / MP	5.0	-	580	-	1.11	Liquid/solid hybrid epoxy dispersion with increased chemical resistance, longer open time and good penetration into concrete/mineral substrates.
BECKOPOX EP 2375w/60WA	60	WA / MP	1.0	-	810	-	1.11	Solid epoxy resin; dispersion in water. rapid drying coating system with excellent sagging resistance
BECKOPOX VEP 2381w/55WA	55	WA / PE	7.8	-	905	-	1.08	Solid type 1 epoxy resin as aqueous dispersion. Fast drying coating systems for mineral and metallic substrates.
BECKOPOX EP 2384w/57WA	57	WA	0.80	-	750	-	1.09	Solvent free, shear stable type 1 epoxy dispersion. Fast drying and hardness development. For both mineral and metallic substrates.
BECKOPOX VEP 2390w/75MP	75	MP / Eth	4.5	-	655	-	1.10	Flexibilized type 1 water-emulsifiable epoxy dispersion. Designed for zinc-rich anti-corrosion primers.
BECKOPOX EP 2392w/70MP	70	MP	3.0	-	715	-	1.08	Flexibilized type 1 water-emulsifiable epoxy dispersion. Designed for zinc-rich anti-corrosion primers.
<b>Water borne Epoxy Ester</b>								
DUROXYN™ EF 2107w/45WA	45	WA	0.10	n.a.	n.a.	5.0	1.07	Cationic epoxy ester emulsion, fatty acid modified, neutralized with acetic acid. Fast drying, more flexible than DUROXYN™ VEF 2406. Excellent stain blocking on wood.
DUROXYN VAX 6127w/42WA	42	WA / MB	1.6	n.a.	n.a.	9.2	1.03	Acrylic and fatty acid modified epoxy ester emulsion, neutralized with triethyl amine. Fast oxidative drying, excellent corrosion resistance, good pigment wetting, high water stability, good re-coatability. Sole binder for air and forced drying anticorrosive primers and gloss industrial coatings.
DUROXYN VEF 2406w/45WA	45	WA	0.50	n.a.	n.a.	5.0	1.07	Cationic epoxy ester emulsion, neutralized with acetic acid. Fast drying, high film hardness. Excellent stain blocking on wood.

All products are APEO free unless specifically mentioned otherwise.

## Cathodic electro deposition resins

Resin name	NV (%)	Solvents	Viscosity (23°C, Pa.s)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Acrylic resin for Industrial CED</b>					
VIACRYL® VSC 6250w/65MP	65	MP	26	1.04	External crosslinking acrylate binder for pigmented primer or clear paint for the production of transparent protective coatings on ferrous and nonferrous metals. Suggested for decorative and general industrial applications.
VIACRYL VSC 6292w/38WA	38	WA / MP	0.25	1.05	Self-crosslinking, thermoset acrylate binder for the production of white or bright cathodic electrodeposition coatings. Recommended for protective coatings on metal.
<b>Epoxy resin for Industrial CED</b>					
RESYDROL® EZ 6635w/35WA	35	WA / Tex	0.50	1.04	Self-crosslinking, thermoset CED binder for industrial applications. Film thickness can be adjusted between 20 and 45 µm.
RESYDROL EZ 6635wcat/35WA	35	WA / Tex	0.50	1.05	Self-crosslinking, internal catalysed thermoset CED binder for industrial applications. Film thickness can be adjusted at 20 and 30 µm.
RESYDROL EM 6642w/55BG	55	BG	7.0	1.00	Grinding resin for stable, highly pigmented pastes used in two-component CED paints.
<b>Radiation curable resin for Industrial CED</b>					
VIACRYL 1111w/70MP	70	MP	7.0	1.09	Radiation curable cathodic depositable acrylate binder. Preferred substrates to be coated are heat sensitive substrates like metalised plastics or special heat sensitive alloys.

All products are APEO free unless specifically mentioned otherwise.



## Water borne polyurethane resins

Resin name	NV (%)	Co-solvents	Type	Viscosity (23°C, mPa.s)	pH at 10%	Neutralization	Elongation %	HEW (as supplied)	Density (kg/dm <sup>3</sup> )	Technical features
<b>Water borne Polyurethane Dispersion</b>										
DAOTAN™ TW 1225/40WANEP	40	WA / NEP	Aliphatic polyester	450	7.2	DMEA	230	2980	1.06	Hydroxy functional polyurethane dispersion with shear stability and pigment compatibility. Good flexibility when cured with isocyanates as well as melamine resins. Very good adhesion to polyamide, polycarbonate, ABS, as well as pretreated PP/EPDM.
DAOTAN VTW 1233/36WANMP	36	WA / NMP	Aliphatic polyester	220	7.8	TEA	800	-	1.05	Excellent flexibility. Suited for the formulation of primer for plastics.
DAOTAN VTW 1250/40WA	40	WA / NMP	Aromatic fatty acid	2000	7.4	NH3	-	4010	1.05	Rapid dry and through drying. High corrosion protection. Good compatibility with acrylic dispersions. Recommended for fast drying anticorrosion primers.
DAOTAN TW 1236/40WANEP	40	WA / NEP	Aliphatic polycarbonate	900	8.0	TEA	330	-	1.06	Dries at room temperature without further coalescing agents or additives to clear, crack-free, (hot) water resistant and highly flexible films.
DAOTAN TW 1237/32WANEP	32	WA / NEP	Aliphatic polyester	32	7.5	TEA	215	-	1.03	Shear stable with good pigment compatibility. Cures at room temperature, giving clear, crack free films with good flexibility and adhesion to polycarbonate, ABS, PUR-RIM and untreated PP/EPDM.
DAOTAN TW 1252/42WA	42	WA / NEP	Aliphatic Fatty acid	1000	8.2	NH3	-	3120	1.05	Very fast set and through drying. Very high gloss for decorative top coats. Good water and weather resistance.
DAOTAN VTW 1262/35WA	35	WA	Aliphatic polycarbonate / acrylic	30	8.0	DMEA	245	4380	1.04	Shear stable with good pigment wetting. Good flexibility. Designed for ambient and force dry industrial coating systems and automotive basecoats.
DAOTAN VTW 1265/36WA	36	WA	Aliphatic polyester	50	7.5	DMEA	280	5840	1.05	Self-crosslinking and forms clear crack-free films without additional coalescing aids. High clarity suitable for wood coatings for furniture and flooring. Good compatibility with acrylic resins used to accelerate drying speed.
DAOTAN VTW 1686/40WA	40	WA / BG / DPGDME	Polyester modified acrylic dispersion	60	6.4	AMP 90	-	-	1.05	Sole binder or in combination with melamine resins and/or polyurethane dispersions for the production of waterdilutable industrial paints, e. g. base coats.
DAOTAN TW 2229/40WANEP	40	WA / NEP	Aromatic polyester	900	7.4	DMEA	-	3260	1.08	Shear stable with good pigment compatibility giving highly flexible films when cured with isocyanates as well as melamine resins. Good adhesion to rigid PVC, polyamide, ABS, PP/EPDM.
DAOTAN TW 6425/40WA	40	WA	Aliphatic / aromatic polyester	600	7.7	DMEA	-	2550	1.08	Shear stable. Good flexibility when cured with isocyanates as well as melamine resins, with good adhesion to polyamide, polycarbonate, ABS and pretreated PP/EPDM.
DAOTAN TW 6429/40WA	40	WA / BG / DPGDME	Aromatic polyester	1200	7.6	DMEA	-	3260	1.08	Highly flexible coating systems, especially primers for plastics. good adhesion to rigid PVC, polyamide, ABS, untreated PP/EPDM.
DAOTAN TW 6436/40WANMP	40	WA / NMP	Aliphatic / aromatic polyester	285	7.6	TEA	-	-	1.09	Clear, crack-free and flexible films after drying. high solvent resistance and good sandability in an early stage of drying. excellent adhesion to ABS, PA, PVC and pre-treated PP.
DAOTAN TW 6438/40WANEP	40	WA / NEP	Aliphatic / aromatic polyester	675	7.6	TEA	-	-	1.08	Self-crosslinking. Quick drying plastic primers. Overcoatability and sandability of these primers is excellent.
DAOTAN TW 6439/30WA	30	WA / MP / DPGDME	Aliphatic polyester	max. 80	8.0	TEA	-	-	1.02	Clear, crack-free films without further addition of organic solvents. These films also exhibit very quick drying, excellent elasticity and mechanical properties.
DAOTAN TW 6440/43WA	43	WA / DPGDME	Aliphatic / aromatic oil based PUD	500	7.5	NH3	-	-	1.05	Self-crosslinking, with rapid cure resulting in clear, ambering, uniform films. Shear stable and good pigment and silicone oil compatibility, with good abrasion and chemical resistance. Developed for interior wood coatings for furniture and flooring.
DAOTAN TW 6450/30WA	30	WA / DPGDME / MP	Aliphatic polycarbonate	max. 50	8.2	DMEA	-	-	1.04	High molecular weight, forms a clear crack-free film at ambient temperatures. Excellent elasticity and mechanical properties as well as very good adhesion to different plastic substrates like ABS, PC, PA, PVC, PC/PBT. Used for plastic primers and auto OEM basecoats with outstanding stone-chip resistance and hot water resistance.
DAOTAN TW 6451/32WA	32	WA / DPGDME / MP	Aliphatic / aromatic polyester	max. 100	8.4	DMEA	-	-	1.05	Excellent elasticity and mechanical properties as well as very good adhesion to different plastic substrates like e.g. ABS, PC, PA, PVC and PC/PBT.
DAOTAN VTW 6460/35WA	35	WA	Aliphatic polyester / acrylic	210	7.8	DMEA	300	4840	1.06	Forms clear, defect free films at ambient conditions without the addition of paint additives. Shear stable, good pigment wetting and compatible with inert pigments. Recommended for ambient and force dry industrial coatings, especially automotive basecoats.
DAOTAN VTW 6462/36WA	36	WA	Aliphatic polyester / acrylic	130	7.9	DMEA	140	3900	1.06	Self-crosslinking, good shear stability, pigment wetting, abrasion resistance and resistance to household detergents. Good adhesion to ABS, PA, rigid and flexible PVC and PMMA. Especially suited for primers and basecoats.
DAOTAN VTW 6463/36WA	36	WA	Aliphatic polyester / acrylic	130	7.9	DMEA	-	3900	1.05	Shear stable with good wetting properties, quick curing to give clear crack-free films. Good abrasion resistance and resistance to household chemicals. Good adhesion to ABS, PA, rigid and flexible PVC and PMMA. Especially suited for primers and basecoats.
DAOTAN TW 6464/36WA	36	WA	Aliphatic polyester / acrylic	130	7.9	DMEA	140	3900	1.06	Shear stable, self crosslinking, providing quick drying and good wetting properties. Good chemical and abrasion resistance, with good adhesion to ABS, PC, treated PP and PVC. Can be used for plastic primer and basecoat. In addition, this resin exhibits extraordinary bright metallic effects.
DAOTAN TW 6466/36WA	36	WA	Aliphatic polyester / acrylic	120	7.9	DMEA	-	-	1.05	High quality, water borne metallic Basecoat formulations for automotive OEM and refinish application.

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## Water borne polyurethane resins

Resin name	NV (%)	Co-solvents	Type	Viscosity (23°C, mPa.s)	pH at 10%	Neutralization	Elongation %	HEW (as supplied)	Density (kg/dm <sup>3</sup> )	Technical features
Water borne Polyurethane Dispersion (continued)										
DAOTAN™ TW 6473/37WA	37	WA	Aliphatic polyester / acrylic	425	8.0	DMEA	-	-	1.04	Self-crosslinking acrylic modified polyurethane dispersion. Shear stable with good pigment compatibility. Good adhesion to PC, PMMA, ABS. Used preferably for anti-fogging coatings.
DAOTAN TW 6474/37WA	37	WA / DPGDME	Aliphatic polyester / acrylic	max. 40	8.4	TEA	-	-	1.05	Hard grade polyurethane dispersion, particularly suitable as combination partner for alkyd and acrylic emulsions, significantly improving the drying time and early hardness development.
DAOTAN TW 6490/35WA	35	WA	Aliphatic polyester	75	9.2	TEA	400	-	1.04	Very good adhesion to plastic substrates like ABS, PVC, PC, PMMA. High elasticity and toughness, excellent mechanical properties (especially stone chip resistance), low yellowing at high temperature. Recommended for primer and basecoat applications.
DAOTAN TW 6493/35WA	35	WA	Aliphatic polyester	75	9.8	TEA	30	-	1.04	Glossy and flat furniture and parquet laquers. High film hardness, high elasticity and toughness, quick physical drying.
DAOTAN TW 6495/35WA	35	WA	Aliphatic polyester	75	8.6	DMEA	-	-	1.04	Very good adhesion to plastic substrates like e.g. ABS, PVC, PC, PMMA. High elasticity and toughness, excellent mechanical properties (especially stone chip resistance), little yellowing at elevated temperature.
DAOTAN TW 7000/40WA	40	WA	Aliphatic polycarbonate	550	8.2	DMEA	-	825	1.05	Very high hardness along with flexibility. Very good adhesion to plastics substrates commonly used in automotive applications (ABS, PC, PP [flam.], PVC, PPSU). Extremely high water and chemical resistance including sunscreen and bug spray.
DAOTAN TW 7225/40WA	40	WA	Aliphatic polyester	550	7.8	DMEA	-	1460	1.02	Highly flexible coating systems especially for primers for plastics. Such systems have very good adhesion to polyamide, polycarbonate, ABS, pretreated PP/EPDM.

All products are APEO free unless specifically mentioned otherwise.

## Additives

Additive name	Dosage	Active content (%)	SB, WB, Universal	Additive type	Automotive	Industry	Architecture	Technical features
<b>Anti floating</b>								
ADDITOL® XL 204	0.5 - 5.0% pigment	55	Universal	Anti floating, anionic	●	●	●	Improves significantly floating of inorganic and organic pigments. Prevents Bénard cell formation. Reduces dispersing time.
<b>Pigment wetting</b>								
ADDITOL XL 250	0.5 - 5.0% pigment	55	Universal	Low MW anionic pigment wetting	●	●	●	Very strong pigment wetting for inorganic and metallic effect pigments. Reduces dispersing time, improves gloss and color strength.
ADDITOL XL 255N	0.2 - 2% inorg pigment 1 - 5% org pigment	58	Universal	Electro neutral modified fatty acid polymer	●	●	●	Very strong pigment wetting, dispersing and flocculation control additive. Effective at low dosage, especially recommended for the production of very stable pigment pastes (e.g. in combination with grinding resins).
ADDITOL XL 6577	2.5 - 10% inorg pigment 15 - 60% matting agent	50	SB	Anionic wetting	●	●		Supra dispersant for inorganic pigments and extenders. Best in class efficiency, high loading and low viscosities.
<b>Pigment wetting and anti settling</b>								
ADDITOL XL 270	0.1 - 2% pigment	55	Universal	Electro neutral fatty acid component	●	●	●	Multi purpose additive for improved pigment wetting, anti settling and anti floating. Improves paint rheology.
<b>Special pigment wetting</b>								
ADDITOL VXL 4992	0.5 - 2.0% pigment / extender	50	SB	Modified polyester wetting additive	●			Multi purpose additive for unsaturated polyester based putties. Strong wetting power for inorganic pigments and fillers. Reduces dispersing time, improves degassing, flow and rheology.
<b>Dispersing additives</b>								
ADDITOL VXL 6212	3 - 10% inorg pigment 10 - 50% org pigment	30	SB	High MW, urethane mod polymer, cationic	●	●		Dispersing additive for all pigment types. Recommended for direct grinding process. Very good compatible with acrylic systems.
ADDITOL VXL 6237N	3 - 10% inorg pigment 10 - 50% org pigment	30	SB	High MW polymer, cationic	●	●		Dispersing additive for all pigment types. Recommended for direct grinding and binder free pigment concentrates. Broad compatibility.
ADDITOL VXW 6208	3 - 10% inorg pigment 15 - 50% org pigment	50	WB	High MW polymer, non ionic	●	●	●	High efficient dispersing additive for all pigment types. The non ionic polymer structure allows utilization in sensitive formulations such as WB epoxy systems. Highly recommended for anti corrosive systems, for both direct grinding and pigment concentrates.
ADDITOL VXW 6208/60	3 - 10% inorg pigment 15 - 50% org pigment	60	Universal	High MW polymer, non ionic	●	●	●	High efficient dispersing additive for all pigment types. The non ionic polymer structure allows utilization in all paint systems, especially in sensitive epoxy formulations. Highly recommended for anti corrosive systems, for both direct grinding and pigment concentrates.
ADDITOL VXW 6394	10 - 30% inorg pigment 30 - 75% org pigment	40	WB	High MW polymer, non ionic		●	●	Dispersing additive for all pigment types. Suitable for sensitive paint formulations such as WB epoxy systems. Highly recommended for WB binder free pigment concentrates.
ADDITOL XW 330	0.1 - 0.4% inorg pigment / extender	30	WB	Polyacrylic type dispersant, ammonium salt			●	Low MW dispersing additive for highly loaded architectural paint formulations. Recommended for inorganic pigments and fillers.
ADDITOL XL 6521	3 - 10% inorg pigment 15 - 60% org pigment	60	SB	High MW polymer, cationic	●	●		Powerful dispersing additive for difficult wettable pigments such as carbon black. Delivers high intensive color and high gloss without re flocculation.
<b>Grinding media</b>								
ADDITOL XL 6557	Grinding medium	70	SB	Air drying, OH-functional, physical drying polymer		●		Grinding medium for industrial pigment concentrates. Broad compatibility to many industrial paint systems. Supports physical and air drying, two-component PUR and amino crosslinking formulations.
ADDITOL XW 6575	Grinding medium	35	WB	Modified acrylic polymer, crosslink able	●	●		Co-crosslinkable grinding medium with high pigment loading capacity. Improves chemical resistances. Suitable for bright colors. Broad compatibility.
ADDITOL XW 6535	Grinding medium	45	Universal	High MW, autoemulsifying polymer		●	●	Universal grinding medium for the production of in house and POS tinting systems suitable for architectural and light industrial colorants. Highly recommended for exterior application.
ADDITOL XW 6565	Grinding medium	38	Universal	High MW, autoemulsifying polymer		●	●	Latest generation universal grinding medium for the production of in house and POS tinting systems suitable for architectural and light industrial colorants. Highly recommended for exterior application. Ultra low VOC and ECO labels 2009/543 - 544/EC.
<b>Flow and leveling additives silicone free</b>								
ADDITOL XL 480	0.1 - 0.5% total	70	SB	Modified low MW acrylic polymer, FDA	●	●		Leveling additive for improved surface quality and anti crater effect. Highly recommended for car refinishing and coil coating systems.
ADDITOL XW 395	0.2 - 1% binder	58	WB	Acrylic polymer, FDA	●	●		Multi purpose leveling additive for improved surface quality, anti crater and anti pinhole effect. Recommended for oil contaminated surfaces.
MODAFLOW® 2100	0.1 - 1% total	100	SB	Medium MW acrylic polymer, FDA	●	●		High efficient flow modifier with good compatibility and easy incorporation. Recommended for top / mono coats and also clear coat systems.

## Additives

Additive name	Dosage	Active content (%)	SB, WB, Universal	Additive type	Automotive	Industry	Architecture	Technical features
<b>Flow and leveling additives silicone free (continued)</b>								
MODAFLOW® 9200	0.1 - 0.5% total	100	SB	Low MW acrylic polymer, crosslinkable	●	●		High efficient flow modifier. Reduces film defects and strongly increases gloss and brilliancy. Recommended for high quality top / mono coats, especially recommended for clear coat systems.
MODAFLOW AQ 3025	1 - 2% total	25	WB	Medium MW acrylic polymer, FDA	●	●	●	Flow promoter for WB high quality surfaces. Improves gloss and brilliancy, reduces micro foam.
MODAFLOW EPSILON	0.1 - 1% total	80	SB	High MW acrylic polymer	●	●		High efficient flow promoter for all SB top / mono coats. Recommended for pigmented systems, limited compatibility to clear coat systems. Improved degassing effect, easy incorporation and handling.
MODAFLOW RESIN	0.1 - 1% total	100	SB	High MW acrylic polymer, FDA	●	●		High efficient flow promoter for all SB top / mono coats. Recommended for pigmented systems, limited compatibility to clear coat systems. Improved degassing effect.
MULTIFLOW® RESIN	0.5 - 3% binder	50	SB	High MW acrylic polymer	●	●		High efficient flow promoter for all SB top / mono coats. Recommended for pigmented systems, limited compatibility to clear coat systems. Improved degassing effect. Contains xylene.
<b>Substrate wetting and anti crater additives</b>								
ADDITOL® VXW 6396	0.1 - 1% total	55	WB	Highly fluor modified low MW polymer	●	●	●	Silicone free substrate wetting, anti crater and leveling additive. Recommended for difficult wetttable substrates. Fast mode of action and not foam stabilizing. Does not harm intercoat adhesion.
ADDITOL XW 6580	0.05 - 0.5% total	100	Universal	Special silicone tenside	●	●	●	Very strong substrate wetting and surface energy control additive. Not foam stabilizing and no negative influence on intercoat adhesion.
ADDITOL XW 390	0.1 - 1% total	50	WB	Fluor modified polymer	●	●	●	Silicone free substrate wetting, anti crater and leveling additive. Recommended for difficult wetttable substrates. Not foam stabilizing. Does not harm intercoat adhesion.
<b>Silicone leveling additives</b>								
ADDITOL VXL 4930	0.05 - 0.3% total	40	Universal	Polyether modified silicone		●	●	Universal silicone leveling additive with very good compatibility. Very efficient spray mist absorption, anti orange peel and anti crater effect. No foam stabilization.
ADDITOL XL 121	0.1 - 0.5% total	14	SB	Modified silicon		●	●	Silicone leveling additive with strong impact on slip and scratch resistance.
ADDITOL XL 122	0.05 - 0.3%	45	SB	Modified silicone	●	●	●	Silicone leveling additive to improve substrate wetting and slip, very good compatibility.
ADDITOL XL 123N	0.05 - 0.5%	50	Universal	Modified silicone		●	●	Silicone leveling additive to improve slip and scratch performance. Supports degassing effect and is thermostable up to 400°C.
<b>Hybrid polymer leveling</b>								
MODAFLOW LAMBDA	0.1 - 0.5%	100	SB	OH-functional acrylic-silicone hybrid polymer	●	●		Highly efficient, crosslinkable flow promoter for improved surface characteristics such as gloss, DOI, brilliancy and anti orange peel effect (appearance). Combined efficiency of acrylic flow promoter and silicone leveling additive.
<b>Defoamer (silicone free)</b>								
ADDITOL VXW 4973	0.1 - 0.6% total	100	WB	Mineral oil, waxes	●	●	●	Highly efficient defoamer with good compatibility and easy incorporation. Broad field of application.
ADDITOL VXW 6386	0.5 - 1.5% total	100	WB	Hydro carbons, waxes	●	●		Defoamer for high quality coatings such as high gloss stoving systems.
ADDITOL VXW 6393	0.1 - 0.5% total	100	WB	Special mineral oil, waxes		●	●	Highly efficient, low odor defoamer for industrial (anti corrosive) and architectural paints (interior).
ADDITOL XW 376	0.05 - 0.5% total	50	WB	Mineral oil, wax emulsion		●	●	Highly efficient, easy to incorporate defoamer. Especially recommended for architectural paint - good cost / efficiency balance.
ADDITOL XW 6544	0.05 - 0.5% total	100	WB	Polymer defoamer, VOC free	●	●	●	Highly efficient defoamer and deaerator for high viscous systems and pigment pastes. Excellent re-flow effect enables better surface quality.
ADDITOL XW 6567	0.05 - 0.5% total	100	WB	Modified hydro carbons, waxes, FDA		●		FDA approved defoamer for BandB, can, caps and closures and aerosol industry. Highly effective.
<b>Defoamer (silicone containing)</b>								
ADDITOL VXL 4951	0.05 - 1% total	20	SB	Fluor modified silicone		●		Very efficient defoamer for solvent based paints. Strong anti blistering effect.
ADDITOL VXW 6210N	0.05 - 0.5% total	100	WB	Hydro carbons, modified silicone	●	●	●	Heavy duty defoamer for pigment preparations and other strong foaming systems.
ADDITOL XW 6569	0.05 - 0.5% total	20	WB	Emulsifier free silicone emulsion, hydrophobic particles		●	●	Highly efficient defoamer for transparent and high gloss systems. Suitable for high and low PVC formulations. No interaction with associative thickeners - no impact on rheology profile.

## Additives

Additive name	Dosage	Active content (%)	SB, WB, Universal	Additive type	Automotive	Industry	Architecture	Technical features
<b>Air release additives (silicone free)</b>								
ADDITOL® VXW 4909	2 - 10% binder	79	WB	Special fatty acid component	●	●		Defoamer and deaerator with broad compatibility and easy incorporation. Recommended for automotive systems.
ADDITOL VXW 4926	2 - 15% binder	100	WB	Special fatty acid component	●	●		Defoamer and deaerator with impact on rheology (film build up). Recommended for automotive systems.
ADDITOL VXW 5907	2 - 3% binder	100	WB	Surface active degassing polymers	●	●		Deaerator to reduce flash off time. Recommended for automotive systems.
ADDITOL XL 6507	0.1 - 0.5% total	10	SB	Degassing polymers, silicone free		●		Defoamer / deaerator for all SB industrial paints, high efficient.
ADDITOL XL 6531	0.1 - 0.5% total	40	SB	Polymer defoamer / deaerator		●		Special defoamer / deaerator for pigmented systems and UP gel / top coats.
<b>Air release additives (silicone containing)</b>								
ADDITOL VXL 6501	0.1 - 1.5% total	7.5	SB	Degassing polymers, silicone containing		●		Defoamer / deaerator for all SB industrial paints, high efficient.
<b>Rheology additives</b>								
ADDITOL VXW 6360	0.1 - 0.3% total	30	WB	Polyurethane thickener	●	●	●	Associative thickener to control rheology and flow. High shear active for roller and brush application.
ADDITOL VXW 6387	0.1 - 5% pigment	60	WB	Special fatty acid component	●	●	●	Rheology modifier to prevent pigment sedimentation and for improved sagging control and storage stability.
ADDITOL VXW 6388	0.1 - 3% total	35	WB	Polyurethane thickener	●	●	●	Associative thickener to control rheology and flow. Low shear active for spray application - improved anti sagging and sedimentation.
ADDITOL XL 280	5 - 10% pigment	36	SB	Modified montmorillonite clay	●	●	●	Powerful anti settling of pigments / extenders. Strong anti sagging effect.
ADDITOL XW 6536	0.2 - 0.8% total	37	WB	Organic activate clay	●	●	●	Special rheology modifier with extremely fast viscosity recovery. Recommended for high wet film thickness (airless spray). Prevents sagging and settling.
<b>Catalysts</b>								
CYCAT® VXX 6364	1 - 7% melamin resin	50	Universal	Ionic blocked pTSA catalyst		●		Strong acid catalyst for stoving systems. Reduces stoving time / temperature.
CYCAT VXX 6395	5 - 15% binder	25	Universal	Ionic blocked pTSA catalyst	●	●		Strong acid catalyst for stoving systems. Reduces stoving time / temperature. Especially recommended for low bake conditions - early deblocking.
CYCAT XK 406N	2 - 5% binder	9	SB	Phosphoric acid ester catalyst, FDA		●		Highly effective catalyst for phenolic / phenolic - epoxy systems. Very good compatibility, recommended for can coatings.
<b>Driers for air drying systems</b>								
ADDITOL VXW 4940N	2 - 3% solid binder	-	WB	Co, Ba, Zr emulsion, NPE-free		●	●	Co-metal containing drier, high efficient and easy incorporation. Improves set and through drying.
ADDITOL VXW 6206	1 - 3% solid binder	-	Universal	Co, Li, Zr combination drier, NPE-free		●	●	Co-metal containing drier, high efficient and easy incorporation. Improves set and through drying. Very fast set drying performance.
ADDITOL XW 6533	4 - 6% solid binder	-	Universal	Co free drier. Accelerated Zr, Mn complex		●	●	Co-free combination drier, allows fast set and through drying. Especially recommended for Industrial alkyd primers and topcoats.
ADDITOL XW 6555	3 - 6% solid binder	-	Universal	Co-polymer, Ba, Zr combination drier		●	●	Non toxic Co-polymer drier, low VOC, with very good through drying efficiency. Needs approximately 48 hours activation time.
ADDITOL XW 6566	2.5 - 7.5% solid binder	-	Universal	Co-polymer, Li, Zr combination drier		●	●	Non toxic Co-polymer drier, low VOC, with very good set drying efficiency. Needs approximately 48 hours activation time.
<b>Special anti adhesion additive</b>								
ADDITOL XL 6568	2 - 5% total	-	Universal	Non toxic, modified fatty acid polymer	●	●	●	Special anti adhesion additive for the production of peelable coatings e.g. temporary protection systems or moulding materials. Suitable for SB and WB formulations removable from various substrates such as metals, glass, wood, clays and plastics.
<b>Special alkyd additive</b>								
TUNGOPHEN® B NV	1 - 3% solid binder	100	SB	Modified phenol / formaldehyd resin		●	●	Special (oxidative) drying control additive to accelerate through drying, improve gloss and flow of SB alkyd systems. Especially recommended for pigmented (non white) mono / topcoats based on medium oil alkyd resins.

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