EUROPE / MIDDLE EAST / AFRICA

INDUSTRIAL COATINGS

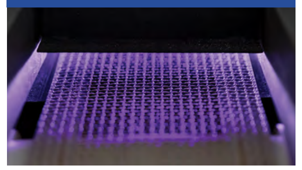
Resins, additives and curing agents

Arkema, a world leader in Specialty Materials

Building on unique set of expertise in materials science, Arkema designs specialty products that address ever-growing demand for innovation and sustainability. We are continually looking for new ways to empower customers and industry leaders to address key challenges such as new energies, advanced technologies, dwindling natural resources, mobility innovation and urbanization trends.

WATERBORNE *systems*

UV/LED/EB *systems*



HIGH SOLID *systems*

POWDER *coatings*

Coatings solutions

Arkema is a trusted partner, offering a wide range of specialty resins and additives for virtually every sector of the coatings industry. With decades of formulation expertise, Arkema helps customers produce performance-driven, sustainable coatings, adhesives, and inks that can meet the most stringent industry regulations.

Make your coatings more sustainable!

For the world to change, we must change the materials we use. Thus, with our partners, we are continuously innovating to offer to our customer a wide variety of options to advance sustainability and performances. To move toward a more circular and lower carbon economy we look at both how the product is designed and how it enables the downstream performances. Hence, in addition of improving our product safety, our experts are committed to developing solutions using more renewable resources and lowering energy consumption across the value chain, while ensuring sustainable performances such as longer durability.

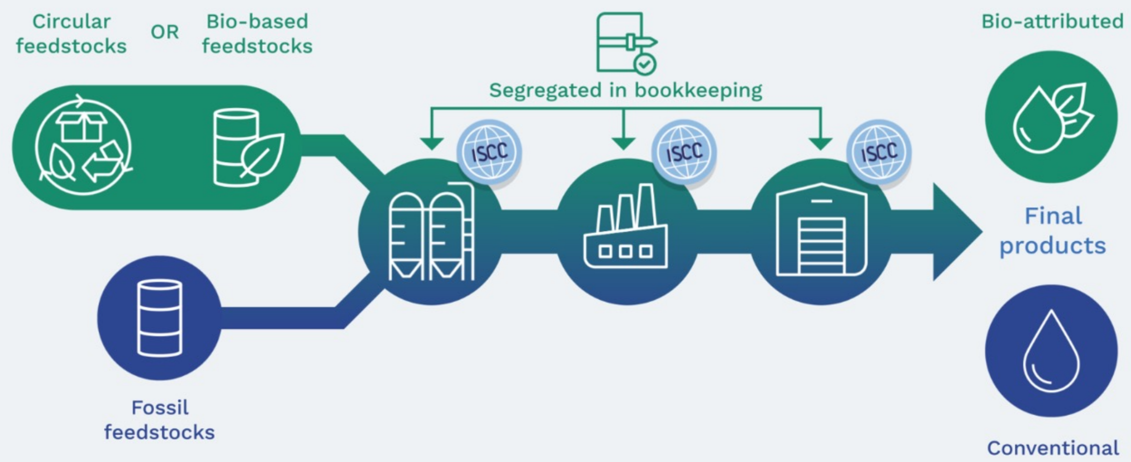
Look for these icons to identify products with specific sustainability features:

- **Elimination Of Substances Of Concern & Hazardous Air Pollutants**
- **Alternative Feedstocks**
- **Lower Energy Intensity, Low Carbon Footprint**
- **Downstream Benefits**
- **Durability**

Mass balance approach

A bio-based offer using mass balance approach to transition to a more circular and lower carbon economy

Arkema is now offering a brand-new bio-based materials offer using the “Mass Balance” approach. This new offer allows our customers to benefit from a product range coming from renewable feedstocks with a lower carbon footprint compared to the fossil version.



What is the “Mass Balance” approach?

The “Mass Balance” approach consists in replacing fossil by renewable feedstocks as the origin of the supply chain, segregating by bookkeeping the quantity of renewable material and “attributing” this quantity to finished products at the end of the chain.
The “Mass Balance” approach requires no modification to the process, or new product accreditation as the high quality and performance of the products remain the same, which makes it easier for our customers to take them up.

Certifying the traceability of this bio-based origin

To ensure the traceability of our “Mass Balance” products, our whole supply chain is certified by a third party according the ISCC+ standards. We provide our customers with certificates that guarantee the share of bio-based feedstock in the product they are purchasing.
The ISCC+ certification of the whole supply chain guarantees that the origin of the renewable sources meets ISCC+ standards for sustainable feedstocks.

SOLVENTBORNE ACRYLIC RESINS

Technology	Product	OH** %	NVC %	Viscosity mPa.s @ 25°	Volatile	IA Max** mgKOH/g	Color Max	1K	1K Stoving	2K	Primer	Clear Primer	Topcoat	Clear Topcoat	DTM	ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	Typical Properties
HIGH SOLIDS ACRYLIC	SYNOCURE® 9226 BA 82	5,4	82	4 000	BA	10	100 Hazen			●			■	■	■	√		√		√			√	√	Very low VOC, below 250g/L.
	SYNOCURE® 589 S 75	4,9	73	6 000	N/BA 1:2	7	2 Gardner			●			■	■		√		√		√			√	√	Very high chemical resistance. Good flow and gloss.
	SYNOCURE® 9299 BA 70	4,5	70	6 250	BA	10	35 Hazen			●			■	■		√		√				√		√	Excellent chemical resistance. High gloss.
	SYNOCURE® 866 EEP 75	4,2	75	3 300	EEP	10	200 Hazen			●			■	■		√		√		√		√	√	√	Excellent force-dry, chemical resistance, flow and exterior durablility.
	SYNOCURE® 9201 S 75	4,2	75	3 500	BA/EEP 1:3	10	70 Hazen			●			■	■		√		√		√		√	√	√	Excellent application properties, chemical resistance, low VOC.
	SYNOCURE® 9266 BA 75	4,2	75	7 500	BA	10	50 Hazen			●			■	■	■	√		√		√			√	√	Good overall performances: excellent durability and weathering with good chemical properties.
	SYNOCURE® 9294 BA 70	4,2	70	2 800	BA	13	50 Hazen			●			■	■		√		√		√			√	√	Good all-around performance high solids acrylic polyol for topcoat.
	SYNOCURE® 853 BA 80	4,1	80	15 000	BA	10	2 Gardner			●			■			√		√				√			Fast cure response when force-dried. Good handling properties at elevated temperatures.
	SYNOCURE® 9291 BA 75	4.1	75	7 500	BA	14	50 Hazen			●			■	■		√		√		√			√	√	Good durability with quick drying. High hardness and toughness with good scratch resistance.
	SYNOCURE® 865 EEP 70	3,1	70	5 000	EEP	8	50 Hazen			●			■	■	■	√		√		√		√	√	√	Exceptional exterior durability. High quality protective coatings, air drying and low bake.
	SYNOCURE® 9237 S 70	3,1	70	2 500	N/X 2:1	10	150 Hazen			●			■	■				√		√		√	√	√	VOC compliant resin for general purpose and protective coatings.
	SYNOCURE® 9260 BA 70	2,9	70	4 500	BA	10	75 Hazen			●	■		■	■	■	√		√				√		√	Low isocyanate requirement, very fast drying time and good durability.
	SYNOCURE® 9293 BA 70	2,9	70	1 500	BA	10	50 Hazen			●	■		■	■	■	√		√				√		√	Low isocyanate requirement, fast air drying, early hardness, VOC compliant and good durability.
	SYNOCURE® 9256 X 70	2,3	70	2 500	X	12	70 Hazen			●	■		■	■				√		√		√	√	√	Exceptional fast drying time, cost effective (low isocyanate demand) and VOC compliant.
	SYNOCURE® 854 BA 80	2,1	80	7 500	BA	10	2 Gardner			●	■		■	■	■	√		√		√		√	√	√	Low isocyanate requirement. Cost effective, VOC compliant, protective coatings with good durability.
CONVENTIONAL SOLIDS ACRYLIC	SYNOCURE® 851 S 60	4,5	60	2 500	X/BA 2:1	10	70 Hazen			●			■	■		√		√				√		√	Very high gloss, excellent application properties and excellent durability.
	SYNOCURE® 9207 S 60	4,5	60	5 700	X/BA 3:1	10	100 Hazen			●			■	■				√		√			√	√	High performance industrial applications, fast cure, high crosslinking density and chemical resistance.
	SYNOCURE® 9206 S 65	4,2	65	5 700	N/BA 4:3	10	100 Hazen			●			■	■				√		√			√	√	Fast dry. Good sprayability. Excellent weather resistance.
	SYNOCURE® 9277 S 65	4,2	65	3 750	X/BA 1:3	10	100 Hazen			●			■	■		√		√		√			√		Higher viscosity version of SYNOCURE® 9279 S 65.
	SYNOCURE® 9279 S 65	4,2	65	2 250	X/BA 1:3	10	100 Hazen			●			■	■		√		√		√			√	√	Fast dry and good early hardness. Good weathering performance.
	SYNOCURE® 9212 S 60	4,2	60	3 000	N/BA 3:2	10	100 Hazen			●			■	■		√		√						√	Excellent gloss, gloss retention and durability.
	SYNOCURE® 861 X 55	4,1	55	2 000	X	12	150 Hazen			●	■		■	■		√		√		√		√	√	√	Acrylic modified polyester. Very good primer/surfacer. Excellent scratch fill.
	SYNOCURE® 9203 S 52	4,0	52	1 100	N/BA 2:1	10	100 Hazen			●			■	■		√		√							Fast dry, good early hardness, excellent mechanical properties and good durability.
	SYNOCURE® 9239 BA 65	3,8	65	5 250	BA	10	100 Hazen			●		■	■	■		√		√		√			√	√	Hydroxy functional acrylated polyester. Good body with quick physical drying. Excellent chemical and water resistance.
	SYNOCURE® 867 BA 60	2,8	60	4 750	BA	8	70 Hazen			●			■	■				√						√	High quality general purpose resin. Fast dry and excellent exterior durability..
	SYNOCURE® 878 N 60	2,7	60	2 400	N	10	100 Hazen			●	■		■			√		√		√		√	√		Good balance of price and performances.
	SYNOCURE® 9216 X 60	2,7	60	1 750	X	10	2 Gardner			●	■		■	■	■			√		√		√	√	√	Good balance of price and performances.
	SYNOCURE® 225 BA 50	2,0	50	3 000	BA	24	50 Hazen			●	■	■	■	■					√					√	Fast hardening. Excellent chemical resistance.
	SYNOCURE® 7715 S 60	1,8	60	3 600	X/PMA 3:2	10	1 Gardner			●	■		■	■				√	√			√			Good adhesion on plastics (ABS/PVC) and different metalic substrates.
	SYNOCURE® 862 X 60	1,6	60	6 800	X	8	100 Hazen			●	■	■	■	■				√	√	√		√	√	√	Fast dry and cost effective. IWF: Primers with good adhesion on melamine substrates.
	SYNOCURE® 869 X 52*	1,6	52	3 700	X	3	70 Hazen			●	■		■	■				√				√		√	Very good drying with long pot life.
	SYNOCURE® 7120 S 50	1,6	50	5 000	X/BA 1:1	10	100 Hazen			●	■	■	■	■					√					√	Used for non yellowing clear and pigmented finishes.
	SYNOCURE® 864 N 60	1,5	60	2 400	N	10	100 Hazen			●	■		■	■				√						√	Protective coatings with good durability.
	SYNOCURE® 213 BA 50	1,3	50	2 600	BA	12	1 Iodine			●	■	■	■	■					√					√	Quick solvent release and good hardness.
	SYNOCURE® 857 X 60	1,2	60	1 800	X	8	70 Hazen			●	■		■	■				√				√		√	Very high flexibility, excellent adhesion on galvanised and non ferrous metals. Excellent modifying resin.
	SYNOCURE® 210 BA 40	1,0	40	3 000	BA	12	1 Iodine			●	■	■		■					√					√	Fast drying and hardening without CAB.
CARBOXYL ACRYLIC NISO	SYNOCURE® 885 S 70	-	70	7 500	X/MP 4:1	18	4 Gardner			●			■		■			√		√			√		Used in combination with cyclo-aliphatic epoxies for high build air drying exterior finishes.
	SYNOCURE® 886 S 70	-	70	4 500	X/B 2:1	52	5 Gardner			●			■	■	■	√				√			√		VOC compliancy. Can be used for direct to metal. Economical ACE topcoats.
	SYNOCURE® 892 BA 70	-	70	3 500	BA	10	3 Gardner			●			■					√		√			√		VOC compliancy with SYNOCURE® 899 BA 70 LM for PCM. High performance for GI.
	SYNOCURE® 9422 BA 70	-	70	4 500	BA	52	5 Gardner			●			■	■	■	√				√			√		Butyl acetate version of SYNOCURE® 886 S 70.
	SYNOCURE® 890 S 55	-	55	2 500	X/BA/N/IB	17	2 Gardner			●			■			√				√			√		Used with SYNOCURE® 899 or 899 LM for fast air dry transport and ACE finishes.
	SYNOCURE® 895 S 55	-	55	3 800	X/BA/N/IB	23	2 Gardner			●			■					√		√			√		Used with SYNOCURE® 899 or 899 LM for flexible air dry finishes.
EPOXY ACRYLIC HARDENER NISO	SYNOCURE® 899 BA 70 LM	-	70	650	BA	-	200 Hazen			●			■							√			√		Epoxy Equivalent Wt ~ 415. Curing agent for SYNOCURE® 890, 892 and 895 for improved solid.
	SYNOCURE® 899 BA 60	-	60	550	BA	-	200 Hazen			●			■					√		√			√		Epoxy Equivalent Wt ~ 380. Curing agent for SYNOCURE® 890, 892 and 895.
THERMOPLASTIC ACRYLIC	SYNOCRYL® 595 PMA 60	-	60	3 000	PMA	5	1 Gardner	●			■		■					√				√			High gloss. Possible to do application wet on wet and in humid conditions. Roof applications.
	SYNOCRYL® 7616 S 50	-	50	1 000	X/MIBK 3:1	17	-	●			■							√				√			Primers for difficult substrates. Excellent adhesion, good exterior durability. Used for garage doors.
	SYNOCRYL® 874 N 40*	-	40	1 400	N	10	100 Hazen	●					■					√		√		√	√		Colour retentive, durable lacquers. Suitable for container and a modifier for chlorinated rubber paints.
	SYNOCRYL® 9122 X 40	-	40	1 100	X	9	1 Gardner	●										√							Combines elasticity with toughness. Very good colour retention at elevated temperature.
THERMOSET ACRYLIC	SYNOCRYL® 839 SD 60	-	60	6 000	ND/B 3:1	10	3 Gardner		●				■	■				√			√				Metal decorating applications. Caps and closure. Clear and pigmented basecoats.
	SYNOCRYL® 9053 SD 55	1,0	55	3 000	SD/BG	19	1 Gardner		●					■							√				Clear topcoats and OPV wet on wet.
	SYNOCRYL® 7013 SD 50	-	50	2 300	ND/B 1,7:1	11	200 Hazen		●				■	■							√				Clear and pigmented basecoats for metal decorating. Good blocking resistance.

B: N-BUTANOL / **BA:** BUTYL ACETATE / **BG:** BUTYL GLYCOL / **EPP:** ETHYL 3-ETHOXY PROPIONATE / **IB:** ISO-BUTANOL / **N:** AROMATIC SOLVENT (BOILING RANGE 155°C-181°C) / **ND:** AROMATIC SOLVENT (BOILING RANGE 175°C-215°C) / **MIBK:** METHYL ISOBUTYL KETONE/ **MP:** METHOXY PROPANOL / **PMA:** METHOXY PROPYL ACETATE/ **SD:** SOLVENT MIXTURE INCLUDING AROMATIC SOLVENT (BOILING RANGE 175°C-215°C) / **X:** XYLENE

* available in different solvent types ** on solid resin
The product data provided in this document are typical values, intended only as guides and should not be considered as sales specifications.

SOLVENTBORNE ALKYD RESINS

Technology	Product	Typical Characteristics: Fatty Acid %	NVC %	Viscosity mPa.s @ 25°C	OH** %	Volatile	IA Max** mgKOH/g	Alkyd Modification	Curing Type: 1K	1K Stoving	2K	Targeted Layers: Primer	Clear Primer	Topcoat	Clear Topcoat	DTM	Main Application Fields: ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	Typical Properties
ALKYD	SYNOLAC® 350 S 65	20	67	1 600	-	MP/IB/E	7	-	●			■	■	■	■					√						Linoleic based. Precondensated alkyd/amino. Low formaldehyde emission furniture lacquers.
	SYNOLAC® 926 X 60	26	60	3 000	1,9	X	15	-	●	●	●	■	■	■	■				√	√	√			√		Linoleic based. High quality fast drying with excellent water spot resistance.
	SYNOLAC® 271 X 60	27	60	3 000	2,5	X	15	-	●	●	●	■		■		■			√							Air drying and stoving system.
	SYNOLAC® 272 X 60	27	60	2 000	2,0	X	10	-	●	●	●	■		■		■			√		√			√		Soya based. High quality fast drying. Good build.
	SYNOLAC® 8026 X 60	27	60	4 500	3,0	X	15	-	●		●	■	■	■	■					√						Linoleic based. Cost efficient nitrocellulose finishes.
	SYNOLAC® 926 X 60 HV	27	60	4 500	3,0	X	15	-	●	●		■		■					√		√			√		Soya based. Good quality general purpose alkyd. Nitrocellulose compatible.
	SYNOLAC® 5402 X 60	30	60	7 000	-	X/N 3:1	12	-	●	●				■					√		√			√		Soya based. Fast drying. General purpose resin.
	SYNOLAC® 3315 BA 70	30	70	3 800	4,2	BA	26	-			●			■	■					√						Hydrogenated castor oil based. High gloss topcoats. Compatible with acrylic resins.
	SYNOLAC® 7035 S 55	31	55	12 600	5,6	X/MEK	22	-			●	■	■		■					√						Cost efficient sealers. Excellent sandability and recoatability.
	SYNOLAC® 5576 S 65	31	65	13 000	5,0	X/MEK	15	-			●	■	■		■					√						General purpose resin for fast drying sealers and topcoats.
	SYNOLAC® 7025 S 50 HV	32	50	11 200	4,8	X/MEK	22	-			●	■	■							√						Cost efficient sealers. Excellent sandability and recoatability.
	SYNOLAC® 1949 X 70	32	70	6 500	3,8	X	10	-			●			■	■					√						High gloss non yellowing pigmented topcoats for kitchen cabinets.
	SYNOLAC® 2126 S 75	32	75	10 000	3,5	X/MEK	22	-			●	■	■	■	■					√						Fast drying clear topcoats. Combinations with high viscosity resins.
	SYNOLAC® 3364 DBA 80	32	80	12 000	4,0	BA	22	-			●		■	■	■					√						Linoleic based. Fast drying topcoats with excellent levelling.
	SYNOLAC® 5014 X 60	33	60	3 100	-	X	15	-	●	●		■		■			√		√		√			√		Linoleic based. High performance resin. Fast drying, high gloss with excellent water spot resistance.
	SYNOLAC® 7312 X 60	34	60	6 300	5,0	X	15	-			●	■	■	■	■					√						Sealers and topcoats mainly crosslinked with isocyanurates.
	SYNOLAC® 3132 X 75	35	75	6 700	-	X	10	-	●	●				■			√		√		√			√		Soya based. High solids air dry. VOC compliant.
	SYNOLAC® 8035 X 60	35	60	2 500	3,0	X	20	-	●	●				■					√							TOFA based. Fast drying and good build resin.
	SYNOLAC® 377 BA 70	36	70	1 900	5,7	BA	30	-			●	■		■						√						Pigmented sealers and topcoats.
	SYNOLAC® 8031 S 75	36	75	6 000	-	BA/E	30	-	●	●		■	■	■	■					√						Aromatic free high solids acid curing lacquers.
	SYNOLAC® 8465 X 60	37	60	6 500	4,5	X	22	-			●				■					√						Topcoats with excellent levelling and mar resistance.
	SYNOLAC® 1035 X 60	38	60	10 500	2,8	X	15	-	●	●				■					√							TOFA based. Air dry and stoving finishes. Economical.
	SYNOLAC® 7806 X 75	38	75	4 200	4,4	X	17	-			●	■	■	■	■					√						Long pot life. Combinations with high viscosity resins.
	SYNOLAC® 8000 BA 75	40	75	4 000	-	BA	12	-	●				■		■					√						Fast drying. Good blocking resistance. Suitable for nitrocellulose lacquers.
	SYNOLAC® 8036 BA 75	40	75	2 500	3,5	BA	20	-	●		●	■	■	■	■					√						Soya based. Good filling power and sandability. Suitable for nitrocellulose lacquers.
	SYNOLAC® 8002 DBA 80	40	80	5 500	-	BA	25	-		●		■		■					√							Dehydrated castor oil based. Low viscosity aromatic free resin, low VOC. High flexibility.
	SYNOLAC® 140 X 60	41	60	4 000	-	X	15	-	●	●				■					√							Soya based. Good for stoving topcoats.
	SYNOLAC® 5512 X 60	43	60	2 200	4,7	X	23	-			●	■								√						Castor based. Flexible resin for highly pigmented sealers.
	SYNOLAC® 435 BA 70	43	70	1 800	5,0	BA	10	-	●	●	●	■	■	■	■					√						Rapeseed based. Versatile binder for acid curing and nitrocellulose lacquers.
	SYNOLAC® 1649 XA 70	43	70	4 000	-	X/B	25	-	●			■	■	■	■					√						Linoleic based. General purpose resin for acid curing lacquers.
	SYNOLAC® 8467 DBA 75	44	75	7 000	4,5	BA	15	-			●		■		■					√						Good compatibility with isocyanurates. Suitable for sealers and matte finishes.
	SYNOLAC® 947 X 65*	47	65	2 700	-	X	10	-	●	●		■		■			√		√		√			√		Soya based. Air drying, stoving and 2K systems, industrial finishes and ACE. Non yellowing.
	SYNOLAC® 1421 WD 50	48	50	11 000	-	WD	10	-	●	●		■		■					√							Linseed based. Brush applied primers and topcoats. Good through dry and chemical resistance.
	SYNOLAC® 8049 S 55*	49	55	4 700	-	WD/MP 3:17	15	-	●					■		■	√		√							Soya based. Fast drying medium oil. Good adhesion.
	SYNOLAC® 2111 WD 70	50	70	2 000	-	WD	15	-	●	●				■					√							High solid alkyd. Fast drying.
	SYNOLAC® 5053 WD 50	53	50	3 300	-	WD	12	-	●			■		■					√							Linseed based. Brush applied primers and topcoats. Good through dry and chemical resistance.
	SYNOLAC® 539 BA 70	53	70	2 700	4,2	BA	15	-			●	■	■	■	■					√						Castor based. Good Flexibility. Highly pigmented sealers.
	SYNOLAC® 755 WD 60	54	60	8 000	-	WD	10	-	●					■					√							Brush applied primers and topcoats. Good through dry and chemical resistance.
	SYNOLAC® 8475 X 60	54	60	1 800	5,2	X	16	-			●	■			■					√						Castor based. Highly pigmented fillers for wood and MDF.
	SYNOLAC® 78 W 50	55	50	2 500	-	W	9	-	●	●				■			√		√		√			√		Linoleic based. Good all-around properties for ACE and transport finishes. Economical.
MODIFIED ALKYD	SYNOLAC® 5201 X 55	25	55	1 600	2,4	X	18	Acrylic	●		●	■		■			√		√		√			√	√	Extremely fast dry paints, good durability, colour retention and early water spot resistance.
	SYNOLAC® 5206 X 50	26	50	2 000	-	X	20	Acrylic	●					■			√		√		√			√		Very fast air dry paint. Good compatibility with other film formers.
	SYNOLAC® 3133 X 74	29	74	7 000	-	X	10	Acrylic	●					■		■	√		√		√			√		High solids, fast air drying alkyd. 420 g/L VOC compliant.
	SYNOLAC® 5237 S 50	34	50	2 000	-	W/X	12	Acrylic	●					■			√		√							Fast air drying paints. Excellent durability and colour retention. Also used for aerosol.
	SYNOLAC® 8236 X 55	40	55	1 800	-	X	6	Epoxy Ester	●	●		■					√		√		√			√		Air dry and stoving primers. Good adhesion and high chemical resistance.
	SYNOLAC® 463 X 60	40	60	1 900	-	X	2	Epoxy Ester	●	●		■		■		■	√		√		√			√		Dehydrated castor oil based. Excellent flexibility.
	SYNOLAC® 5387 X 60	40	60	2 000	-	X	4	Epoxy Ester	●			■					√		√		√			√		Very fast air dry. Anti-corrosion primers with good chemical and abrasion resistance.
	SYNOLAC® 7503 X 60	31	60	3 500	-	X	17	Phenolic	●			■					√		√		√			√		Fast air dry anticorrosive primers with excellent adhesion, corrosion, salt spray and chemical resistance.
	SYNOLAC® 2833 X 60	33	60	4 200	-	X	20	Phenolic	●			■					√		√		√			√		Linseed/tung based. Very good water resistance.
	SYNOLAC® 385 X 60	38	60	4 000	-	X	12	Phenolic	●			■					√		√		√			√		Linoleic/tung based. Anticorrosive primer. Very fast dry, early water resistance, good adhesion, chemical resistance.
	SYNOLAC® 1180 WD 70	65	70	2 800	-	WD	16	Phenolic	●			■		■	■				√		√			√		Linseed/tung based. Formulated for aromatic free coatings. Good durability.
	SYNOLAC® 8298 WD 60	75	60	330	-	WD	16	Phenolic	●										√							Formulated for aromatic free coatings, high gloss, good water resistance.
	UNITHANE® 612 S 60	36	60	3 000	-	X/BA	10	Urethane	●			■		■					√							Very good water resistance even after very short drying time.
	UNITHANE® 373 X 60	37	60	3 500	-	X	3	Urethane	●			■		■		■	√		√		√			√		Anticorrosive primers with fast dry and good chemical resistance.
	UNITHANE® 644 WD 55	54	55	5 200	-	WD	5	Urethane	●					■					√		√			√		Isocyanate aliphatic based. Non yellowing.
	UNITHANE® 645 WD 57	60	57	2 300	-	WD	3	Urethane	●					■					√							Good drying and abrasion resistance.
	UNITHANE® 655 WDA 55*	61	55	1 600	-	WD	3	Urethane	●					■					√		√			√		General purpose urethane alkyd with good abrasion resistance and drying properties.
	UNITHANE® 1077 WD 60	66	60	5 800	-	WD	1	Urethane	●					■					√	√						Urethane oil based on drying oil and aromatic isocyanate. High gloss for boats and frames.
	SYNOLAC® 2700 WD 70	-	70	4 000	-	WD	10	Silicone	●					■					√		√			√		High quality air dry decorative topcoats with excellent weatherability.
	SYNOLAC® 5250 X 50	30	50	3 000	2,7	X	20	Styrene	●	●		■		■					√							Dehydrated castor oil based. Primers for polyurethane topcoats. Compatible with nitrocellulose.
	SYNOLAC® 8250 X 60	30	60	3 700	-	X	15	Styrene	●					■					√		√			√		Good resistance to water and mineral oils.
	SYNOLAC® 40 X 60	36	60	2 250	2,7	X	15	Styrene	●		●	■		■					√		√			√	√	Dehydrated castor oil/soya based. Very fast drying paints, excellent gloss, hammer finishes.

B: N-BUTANOL / **BA:** BUTYL ACETATE / **E:** INDUSTRIAL METHYLATED SPIRITS / **IB:** ISO-BUTANOL / **N:** AROMATIC SOLVENT (BOILING RANGE 155°C-181°C) / **MEK:** METHYL ETHYL KETONE / **MP:** METHOXY PROPANOL / **X:** XYLENE / **W:** WHITE SPIRIT / **WD:** D40 WHITE SPIRIT

* available in different solvent types ** on solid resin
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SOLVENTBORNE POLYESTER RESINS

Technology	Product	Typical Characteristics						Curing Type		Targeted Layers						Main Application Fields									Typical Properties
		OH** mgKOH/g	NVC %	Viscosity mPa.s @ 25°C	Volatile	IA Max** mgKOH/g	Color Max Gardner	1K Stoving	2K	Primer	Clear Primer	Backer	Topcoat	Clear Topcoat	DTM	ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	
POLYESTER POLYOL	SYNOLAC® 5085	7,6%	100	900	-	3	3	●	●	■			■		■	√		√		√		√	√		Modifying resin to improve build, VOC, and application properties such as flow, gloss, DOI, wetting, adhesion and flexibility.
	SYNOLAC® 5086	6,2%	100	7 000	-	7	3	●	●	■			■		■	√		√		√		√			Modifying resin to improve build, VOC, and application properties such as flow, gloss, DOI, wetting, adhesion and flexibility.
	SYNOLAC® 1529 BA 80	5,0%	80	3 500	BA	16	2	●	●	■			■			√		√		√		√	√		For high build coatings. Used as 2K polyurethane system.
	SYNOLAC® 3636 BA 80	4,3%	80	2 500	BA	12	1	●	●	■			■			√		√				√		√	Good flexibility and good compatibility with polyesters and acrylics. Modifying resin.
	SYNOLAC® 9770 BA 80	4,3%	80	2 000	BA	3	2	●	●				■	■				√				√		√	Very good flexibility and chemical resistance. Good durability.
	SYNOLAC® 227 S 65	3,6%	65	6 500	N/X 2:1	10	-	●	●	■			■			√		√	√			√			Stoving, good reactivity and low yellowing. Good adhesion and durability in 2K system.
	REALKYD® XTR 120	175	-	8 500 @35°C	-	4	150 Hazen		●		■		■					√	√			√			Mw= 1000 ; water content= 0,1 max. Slightly branched and gives good flexibility and adhesion on different substrates.
	REALKYD® XTR 10ZG0	112	-	1 250	-	1	6		●		■		■					√	√			√			Mw= 1000 ; water content= 0,1 max. Very high flexibility and very good brightness, can be used for making PU water dispersions.
	REALKYD® XTR 20230	56	-	1 100 @75°C	-	1	100 Hazen		●		■		■					√	√			√			Mw= 2000 ; water content= 0,1 max. Excellent hydrolysis resistance and adhesion with very good mechanical resistance properties.
	REALKYD® XTR 20DK0	56	-	1 150 @75°C	-	1	150 Hazen		●		■		■					√	√			√			Mw= 2000 ; water content= 0,03 max. Excellent physical and mechanical properties, abrasion and solvent resistance.
ACRYLIC MODIFIED POLYESTER	SYNOLAC® 267 ND 60	55	60	3 250	ND	12	2	●						■							√				OPV resin for metal packaging. Wet on wet application.
OIL FREE POLYESTER	SYNOLAC® 9613 S 76	150	76	3 250	N	5	3	●				■					√								High yield resin capable of curing at high line speeds. Excellent adhesion to polyurethane foams.
	SYNOLAC® 9608 S 65	150	65	3 600	N/BG	10	3	●				■					√								Good adhesion to polyurethane foam. Used in coil backer coatings.
	SYNOLAC® 9658 S 76	70	76	7 000	N/X	3	3	●				■	■		■		√								High yield with good UV durability. Suitable for wet on wet applications.
	SYNOLAC® 9677 S 50	60	50	2 500	ND/BG	5	3	●					■	■							√				High quality clear topcoat with high scratch resistance.
	SYNOLAC® 9689 SD 65	55	65	2 250	ND/BG	3	3	●					■				√								Cyclo-aliphatic, UV resistant and superdurable. High reactivity.
	SYNOLAC® 9666 S 70	50	70	2 750	N/BG	10	4	●					■				√								High yield. Suitable for monocoat applications.
	SYNOLAC® 9605 S 65	50	65	3 600	N/BG	10	3	●				■	■				√				√				Good mechanical properties and UV durability. Suitable for backer and monocoat.
	SYNOLAC® 9647 N 70	40	70	3 000	N/X	4	3	●		■		■			■		√								High yield, high thickness polyurethane system.
	SYNOLAC® 9635 SD 65	35	65	2 000	ND/BG	3	3	●					■				√								Cyclo-aliphatic and UV resistant superdurable resin.
	SYNOLAC® 9669 S 66	30	66	1 350	N/BG	4	3	●		■		■	■				√								High flexibility. Can be used as primer in backer coatings. Suitable for monocoat.
	SYNOLAC® 75 ND 64	30	64	3 750	ND	6	2	●		■			■				√								Linear thermoplastic saturated polyester. Excellent mechanical properties.
	SYNOLAC® 153 ND 60	30	60	12 000	ND	10	3	●		■	■										√				High quality resin for white basecoat in metal packaging coatings.
	SYNOLAC® 0691 SD 60	25	60	2 850	ND/BG	5	2					■	■		■		√								High quality and flexible. Aluminium application and suitable for monocoat applications.
	SYNOLAC® 9640 S 65	20	65	3 500	N/BG	4	4	●		■			■		■		√								Flexibility and durability. Resin for universal primer. Suitable for monocoat applications.
	SYNOLAC® 9675 S 65	20	65	3 500	N/BG	3	4	●		■	■			■							√				High quality, flexible clear and white basecoats. Suitable for wet on wet applications.

REACTIVE POLYMIDES (EPOXY CURING AGENTS)

Technology	Product	Typical Characteristics						Curing Type			Targeted Layers					Main Application Fields									Typical Properties
		AHEW Amine Hydrogen Equivalent Weight	NVC %	Volatile	Total Amine Value mgKOH/g	Viscosity mPa.s @ 40°C	Color Max Gardner	1K	1K Stoving	2K	Primer	Clear Primer	Topcoat	Clear Topcoat	DTM	ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	
REACTIVE POLYAMIDE	CRAYAMID® 115	240	100	-	230-260	55 000	11			●	■		■			√		√		√			√		General purpose polyamide for topcoats, anti-corrosion, durability.
	CRAYAMID® 125	130	100	-	340-380	9 000	11			●	■		■			√		√		√			√		High build epoxy coatings, adhesives, casting.
	CRAYAMID® 140	95	100	-	370-410	4 500	11			●	■		■			√		√		√			√		High solids and solvent free coatings, casting adhesives.
	CRAYAMID® 100 X 60	475	60	X	83-93	4 500	10			●	■		■			√		√		√	√		√		Quick drying, flexibility and long pot life.
	CRAYAMID® 115 X 70	240	70	X	230-260	1 500	10			●	■		■			√		√		√			√		General purpose, anti-corrosion and durability.
	CRAYAMID® 195 X 60	240	60	X	240-270	4 500	10			●	■		■			√		√		√			√		Developed from CRAYAMID® 115 X 70, very fast surface cure and drying time.
	CRAYAMID® 125 X 90	130	85	X	340-380	4 500	10			●	■		■			√		√		√			√		Developed from CRAYAMID® 125 thinned in xylene.
	CRAYAMID® 230 X 60	280	60	X	200-230	2 250	12			●	■		■			√		√		√			√		Based on CRAYAMID® 115, fast dry, good compatibility.

BA: BUTYL ACETATE / **BG:** BUTYL GLYCOL / **N:** AROMATIC SOLVENT (BOILING RANGE 155°C-181°C) / **ND:** AROMATIC SOLVENT (BOILING RANGE 175°C-215°C) / **X:** XYLENE

** on solid resin
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WATERBORNE SOLUTIONS

Technology	Product	Typical Characteristics						Curing Type			Targeted Layers					Main Application Fields									Typical Properties
		Polymer Type	NVC %	Volatile	MFFT °C	IA Max** mgKOH/g	Viscosity mPa.s @ 23°C	1K	1K Stoving	2K	Primer	Clear Primer	Topcoat	Clear Topcoat	DTM	ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	
WATERBORNE SOLUTIONS	SYNAQUA® 5120 BG 72	Alkyd	72	BG	-	50	9 000	●	●		■	■	■	■				√	√						Water dilutable alkyd. Short oil alkyd based.
	SYNAQUA® 4804	Alkyd	50	Water	-	-	< 300	●	●		■		■		■	√		√							Alkyd emulsion. Extremely low VOC and high gloss.
	SYNAQUA® E21047	Alkyd	50	Water	-	-	< 300	●	●				■			√		√							Alkyd emulsion. Extremely low VOC, high gloss, good hardness development, and less yellowing.
	SYNAQUA® 9511	Acrylic	45	Water/ BG/ DMEA	-	-	< 1 500		●	●	■		■	■	■	√		√	√	√		√	√		Waterborne acrylic polyol emulsion (3%OH). High gloss and chemical resistance.
	SYNAQUA® 811 S 48	Acrylic	48	Alcohol/ Water	-	-	1 500		●				■	■				√			√				Aqueous solution of a high molecular weight acrylic polymer. Melamine hardener included.
	SYNAQUA® 2350 EP 60	Epoxy Ester	60	EP	-	75	3 250	●	●		■	■	■	■				√							Waterdilutable alkyd. Suitable for glass application.
	SYNAQUA® 3510 SW 80	Modified Polyester	80	SW	-	55	20 000		●	●	■		■			√		√	√	√			√		Waterdilutable alkyd. 2K polyurethane topcoats (3% OH on solids) with high gloss, good chemical resistance and corrosion resistance.
	ENCOR® 2124	Acrylic	43	Water	3	-	< 100	●			■	■	■	■					√						Joinery topcoats with good outdoor durability.
	ENCOR® 2710	Acrylic	43	Water	4	-	< 200	●			■	■	■	■					√						Low MFFT binder for stain-blocking primers.
	ENCOR® 2502	Acrylic	47	Water	6	-	< 800	●			■	■	■						√						Used in combination with alkali-soluble to improve water resistance.
	ENCOR® 2229	Acrylic	50	Water	10	-	< 200	●			■	■							√						General purpose alkali-soluble for panelling. Excellent transfer efficiency.
	ENCOR® 2711	Acrylic	43	Water	15	-	< 1 000	●			■	■	■	■					√						Sandable stain-blocking primers.
	ENCOR® 2171	Acrylic	43	Water	44	-	< 1 000	●	●	●	■	■	■	■	■	√		√	√				√		Dual-cure self-crosslinking and hydroxy functional (1,3 % OH on solids). Fast drying.
	ENCOR® 2167	Acrylic	44	Water	46	-	< 400	●			■	■	■	■					√						Self-crosslinking emulsion for furniture. Excellent sandability and appearance on wood.
	ENCOR® 2180	Styrene/ Acrylic	44	Water	30	-	< 1 500	●			■	■	■	■					√						High water resistant primers and fillers applied on wood panels.
	ENCOR® 2455	Styrene/ Acrylic	41	Water	60	-	< 150	●			■	■	■						√						Wood stains with homogeneous colouring effect.
	ENCOR® 2341	Vinyl Versatate	50	Water	< 5	-	< 6 000	●			■	■			■				√						Used in combination with alkali-soluble for cost-efficient fillers.
	ENCOR® 2394	Vinyl Acetate	55	Water	11	-	4 500	●															√		Vinyl acetate copolymer dispersion, good intumescent profile, APEO free.

WE SUPPORT YOU WITH A COMPLETE RANGE OF SOLUTIONS TO OFFER PROTECTION UNDER ANY CONDITION

BG: BUTYL GLYCOL / **DMEA:** DI METHYL ETHANOL AMINE / **EP:** ETHOXY PROPANOL / **MP:** METHOXY PROPANOL / **SW:** WATER DILUTABLE SOLVENT MIXTURES

** on solid resin
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RHEOLOGICAL AND SURFACE MODIFIER ADDITIVES

Technology	Product	Typical Characteristics: Aspect	Chemistry	Active Content %	Volatile	System: Solvent Based	Solvent Free	UV Cured	Waterbased	Main Application Fields: ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	Typical Properties: Matting	Slip	Abrasion Resistance	Scratch Resistance	Remarks
WAX	CRAYVALLAC® WN-1875	Powder	Cross-linked	100	-	●		●	●	√		√	√			√			■				Strong matting effect and stain resistance in all liquid coatings. Specially designed for water-based wood coatings and UV curing systems. No chalking and high heat resistance.
	CRAYVALLAC® WN-1135	Powder	Modified PP	100	-	●		●	●	√	√	√	√			√			■	■			For satin finishes. Excellent dispersability, hydrophobicity, slip and mar resistance.
	CRAYVALLAC® WN-1535	Powder	Modified PP	100	-	●			●	√		√	√		√	√			■	■			Scratch resistance and matting agent for both solvent and water-based semi-gloss finishes, with limited impact on viscosity in solvent-based finishes.
	CRAYVALLAC® WN-1265	Powder	Polyamide	100	-	●			●				√							■			Improves sandability in solvent and water-based wood finishes. Avoids blooming in acid curing systems. Increases slip and mar resistance.
	CRAYVALLAC® WN-1495	Powder	Polyethylene	100	-	●			●	√		√			√	√				■	■		Versatile wax to improve slip, antiblocking, mar and rub resistance.
	CRAYVALLAC® WN-2950	Powder	Polyethylene	100	-	●			●	√		√			√	√					■	■	High melting wax for better heating resistance.
	CRAYVALLAC® WN-3200	Powder	Modified PTFE	100	-	●			●		√	√	√		√	√	√			■	■	■	Versatile wax with high slip and lubricity. Resistance and surface hardness.
	CRAYVALLAC® WN-6010	Powder	Modified PTFE	100	-	●			●		√	√	√		√	√	√			■	■	■	Similar to CRAYVALLAC® WN-3200 but gives higher lubricity, blocking and abrasion resistance. Suitable where more demanding technical properties are required.
	CRAYVALLAC® WN-1000	Powder	Modified PTFE	100	-	●			●			√			√					■	■	■	Highest abrasion, mar, rub and temperature resistance. Lowest coefficient of friction.
	CRAYVALLAC® WN-1001	WB Dispersion	Polyethylene	40	Water				●			√				√				■	■	■	Excellent stability with high slip, abrasion and rub resistance in water-based coatings. Good compatibility and rapid dispersion.
	CRAYVALLAC® WN-1074	WB Dispersion	Polyethylene	40	Water				●			√				√				■	■	■	High slip, abrasion and rub resistance, with water repellent properties.
	CRAYVALLAC® WN-1077	WB Dispersion	Modified PTFE	50	Water				●			√				√				■	■	■	Exceptional slip, scuff and rub resistance for demanding applications. Wide compatibility and excellent stability in water-based systems.

Technology	Product	Typical Characteristics: Aspect	Chemistry	Active Content %	Volatile	System: Solvent Based	Solvent Free	UV Cured	Waterbased	Main Application Fields: ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	Typical Properties: Film Defect	DOI	Air Release	Substrate Wetting	Remarks
FLOW AND LEVELING	CRAYVALLAC® Flow-200	Liquid	Polyester	100	-	●	●	●			√	√	√		√		√	√	■	■			Balanced compatibility.
	CRAYVALLAC® Flow-100	Liquid	Polyacrylate	100	-	●	●	●			√	√	√		√		√	√	■	■			Versatile and wide adequacy in many formulations.
	CRAYVALLAC® A-620-A2	Liquid	Polyacrylate	80	-	●					√	√			√			√	■	■			Improve levelling and gloss. Eliminates cratering and pinholes.
	CRAYVALLAC® A-2201-M	Liquid	Polyacrylate	70	X/B	●					√	√			√			√	■	■	■	■	Enhanced efficiency when blended with other flow additives.
	CRAYVALLAC® A-72-A2-60	Liquid	Polyacrylate	60	-	●					√	√			√			√	■	■			Higher molecular weight version of CRAYVALLAC® A-620-A2.
	CRAYVALLAC® A-2678-M	Liquid	Polyacrylate	50	Water/BG/DMEA				●		√	√	√		√			√	■	■	■	■	Grind aid for water-based coatings.

Technology	Product	Typical Characteristics: Aspect	Chemistry	Active Content %	Volatile	System: Solvent Based	Solvent Free	UV Cured	Waterbased	Main Application Fields: ACE	Coil	General Metal	Industrial Wood	Marine	Packaging Metal	Plastic	Protective	Vehicle Refinish	Typical Properties: Shear Thinning	Sag control	Anti-settling	Levelling	Remarks
RHEOLOGICAL	CRAYVALLAC® Antisettle CVP	Powder	Castor derivative	100	-	●	●			√		√						√	■	■	■		General purpose rheology modifier, when solvent strength and activation temperatures are not extreme.
	CRAYVALLAC® MT	Powder	Castor derivative	100	-	●	●			√		√	√	√		√	√	√	■	■	■		Used mainly with alkyds and acrylics. Can also be used in epoxy and polyurethane coatings.
	CRAYVALLAC® SF	Powder	Castor derivative	100	-	●	●			√		√				√	√	√	■	■	■		Used in polyurethane, polyester, alkyd and acrylic topcoats. Excellent sag control with low thickening.
	CRAYVALLAC® Super	Powder	Polyamide	100	-	●		●		√		√	√	√		√	√	√	■	■	■		Highly recommended in epoxy coatings. Allows excellent recoatability and sag control.
	CRAYVALLAC® Ultra	Powder	Polyamide	100	-	●						√		√			√		■	■	■		Mainly used in epoxy coatings. Ultra high solids to solvent free. Excellent recoatability and sag control.
	CRAYVALLAC® REV	Powder	Polyamide	100	-	●	●			√	√			√			√		■	■	■		Robust, efficient and versatile.
	CRAYVALLAC® Extra	Powder	Polyamide	100	-	●	●					√		√			√		■	■	■		For very high solids systems. Especially recommended for epoxy primers.
	CRAYVALLAC® Optima	Powder	Polyamide	100	-	●	●					√		√			√		■	■	■		For solvent-free epoxy and polyurethane coatings.
	CRAYVALLAC® LV	Powder	Polyamide	100	-		●					√	√	√			√	√	■	■	■		For solvent-free epoxy and polyurethane coatings.
	CRAYVALLAC® 60P	Powder	Polyolefin	100	-	●	●					√		√			√				■		For anti-settling properties in high solids and solvent-free epoxy coatings. Solvent-free alternative to CRAYVALLAC® 60X type.
	CRAYVALLAC® 60X	Paste	Polyolefin	20	X	●						√		√			√				■		Antisettling properties without significant thickening.
	CRAYVALLAC® PA5 X5R 25	Paste	Polyamide	25	X	●				√		√		√			√		■	■	■		Robust under high shear conditions.
	CRAYVALLAC® PA3 X 20	Paste	Polyamide	20	X	●						√		√			√		■	■	■		Excellent sag control and anti-settling.
	CRAYVALLAC® PA4 X 20	Paste	Polyamide	20	X	●						√	√	√			√	√	■	■	■		Excellent transparency and better dispersability.
	CRAYVALLAC® PA3 BA 20	Paste	Polyamide	20	BA	●						√		√			√		■	■	■		Excellent sag control and anti-settling.
	CRAYVALLAC® PA4 BA 20	Paste	Polyamide	20	BA	●						√	√	√			√	√	■	■	■		Excellent transparency and better dispersability.

B: N-BUTANOL / **BA:** BUTYL ACETATE / **BG:** BUTYL GLYCOL / **DMEA:** DI METHYL ETHANOL AMINE / **DMSO:** DI METHYL SULFOXIDE / **X:** XYLENE / **W:** WHITE SPIRIT
PP: POLYPROPYLENE / **PTFE:** POLYTETRAFLUOROETHYLENE

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NOTES

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