SPOLCHEMIE

PRODUCT
CATALOGUE

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SPOLCHEMIE

COMPANY INTRODUCTION

SPOLCHEMIE, a distinguished chemical company based in the Czech Republic, holds a significant position within the European market. With a rich history dating back to 1856, we are recognized as one of the leading manufacturers of synthetic resins in Europe. Our extensive product portfolio includes epoxy resins, specialty epoxy systems, alkyd resins, hydroxides, chlorine derivatives and other chemical products. Our products find wide-ranging applications across various industries among others: automotive, construction, energy, electronics, and pharmaceuticals, underscoring our commitment to innovation, quality and sustainability.

R&D AND INNOVATIONS

Spolchemie's growth has been thrived by focusing on innovative chemical products and technologies that aligns with global trends and customer needs. Our dedicated research teams in Ústí nad Labem collaborate closely with our production and business divisions to swiftly and effectively respond to unique demands.

Our research covers important areas: our resin team works on systems for composites, paints, coatings, and construction, and our inorganics team specializes in chlorine derivatives. Our research institute in Pardubice features state-of-the-art facilities and offers independent certification and analysis through its accredited labs.

The trends in our research and development focus strongly on the utilisation of environmentally friendly and renewable resources, while production focuses on special sophisticated systems of alkyd and epoxy resins..

SUSTAINABILITY CONCEPT

We, at SPOLCHEMIE, believe that systematic and effective prevention and mitigation of harm to the environment and humans together with developing modern and environmentally friendly technologies is key for future sustainable development not only of our company but also of the society as a whole. We feel a responsibility to protect the climate and nature and we respond to demands of our customers who are looking for more sustainable and environmentally friendly solutions. We strive to ensure that our activities are in line with the principles of sustainable development and Responsible Care principles.

Photo: SPOLCHEMIE Office Building (Built 1930)

BASIC EPOXY RESINS

Photo: Epoxy Resin Production Plant - Epispol (2007)

Our **EnviPOXY®** product range offers significant advantages in terms of quality and environmental benefits. It is the only low molecular epoxy resin produced in Europe **with a maximum renewable content of 33,5% (calculated value)**.

A cradle-to-gate life cycle assessment (LCA) of both epoxy production processes confirmed that the conventional route from propylene has significantly higher environmental impacts. Compared to the propylene route, **the carbon footprint of our environmentally friendly epoxy production from glycerine is lower by 65%,** consumes less energy, and has lower eutrophication and acidification potential.

EnviPOXY® Resins FROM FOSSIL **TO RENEWABLES**

Using our EnviPOXY® can contribute to climate protection and reduce environmental impact of your product.

Product	Viscosity (Pa.s, 25 °C)	Epoxy index (mol/kg)	EEW (g/mol)	Hydrolyzable chlorine (%)	Colour (APHA, Gardner*)	Application	Description
EPOXY RESINS – EnviPOXY® | ONLY TOP SELECTED PRODUCTS							
EnviPOXY® 510	12,5–16,0	5,18–5,46	183–193	max. 0,03	max.200	Modifications, adhesives, composites	BPA type with **low CO_2 footprint** and with low tendency to crystalize
EnviPOXY® 520	12,0–14,5	5,21–5,50	182–192	max. 0,03	max.100	Modifications, adhesives, composites	BPA type with low **CO_2 footprint**
EnviPOXY® 525	10,0–12,0	5,29–5,59	179–189	max. 0,03	max.100	Modifications, adhesives, composites	BPA type with **low CO_2 footprint**
EnviPOXY® 530	8,0–10,0	5,38–5,68	176–186	max. 0,03	max.100	Modifications, adhesives, composites	BPA type with **low CO_2 footprint**
EnviPOXY® 210 X 75	5,0–12,0	2,0–2,3	445–500		max.1*	High performance two component coating materials such as anticorrosion primers	75% solution in xylene with **low CO_2 footprint**

Product	Viscosity (Pa.s, 25 °C)	Epoxy index (mol/kg)	EEW (g/mol)	Hydrolyzable chlorine (%)	Colour (APHA, Gardner*)	Application	Description
BASIC LIQUID EPOXY RESINS							
CHS-EPOXY® 510	12,5–16,0	5,18–5,46	183–193	max. 0,03	max.200	Modifications, adhesives, composites	BPA type with low tendency to crystalize
CHS-EPOXY® 520	12,0–14,5	5,21–5,50	182–192	max. 0,03	max.100	Modifications, adhesives, composites	BPA type
CHS-EPOXY® 525	10,0–12,0	5,29–5,59	179–189	max. 0,03	max.100	Modifications, adhesives, composites	BPA type
CHS-EPOXY® 525 LA	10,0–12,0	5,30–5,50	182–189	max. 0,03	max.100	Modifications, adhesives, composites	BPA type with low α-glycol content
CHS-EPOXY® 530	8,0–10,0	5,38–5,68	176–186	max. 0,03	max.100	Modifications, adhesives, composites	BPA type
CHS-EPOXY® 590	3,0–5,5	5,70–6,06	165–175	max. 0,03	max.100	Modifications, adhesives, composites	BPF type
BASIC SEMI-SOLID EPOXY RESINS							
CHS-EPOXY® 301		2,7–3,3	300–370		-	Hot casting, solventborne coatings, prepregs	BPA type semisolid epoxy resin
CHS-EPOXY® 411	0,5–0,8[1]	3,9–4,2	238–256		max.100	Hot casting, solventborne coatings, prepregs	BPA type semisolid epoxy resin
BASIC SOLID EPOXY RESINS							
CHS-EPOXY® 030	2,6–6[2]	0,25–0,45	2 220–4 000		max.100	Can and coil coatings	High molecular weight "9-type" epoxy resin
CHS-EPOXY® 030 HV	6–8[2]	0,26–0,44	2 273–3 846		max.100	Can and coil coatings with higher viscosity than CHS-EPOXY 030	High molecular weight "9-type" epoxy resin
CHS-EPOXY® 050	1,6–2,6[2]	0,50–0,65	1 550–2 000		max.100	Can and coil coatings	High molecular weight "7-type" epoxy resin
CHS-EPOXY® 070	1,7–2,6[2]	0,61–0,74	1 350–1 640		max.100	Can and coil coatings	High molecular weight "6-type" epoxy resin
CHS-EPOXY® 112	0,5–1,0[2]	0,95–1,11	900–1 050		max.100	Powder coatings	Medium molecular weight "4-type" epoxy resin
CHS-EPOXY® 121	0,4–0,8[2]	1,11–1,25	800–900		max.100	Powder coatings	Medium molecular weight "3,5-type" epoxy resin
CHS-EPOXY® 130	0,3–0,6[2]	1,25–1,43	700–800		max.100	Powder coatings	Medium molecular weight "3-type" epoxy resin
CHS-EPOXY® 141	0,30–0,55[2]	1,43–1,54	650–700		max.100	Powder coatings	Low molecular weight "2,5-type" epoxy resin
CHS-EPOXY® 160	0,25–0,45[2]	1,54–1,67	600–650		max.100	Powder coatings	Low molecular weight "2-type" epoxy resin
CHS-EPOXY® 171	0,20–0,35[2]	1,67–1,82	550–600		max.100	Powder coatings, solventborne coatings	Low molecular weight "1,5-type" epoxy resin
CHS-EPOXY® 211	0,15–0,25[2]	1,82–2,22	450–550		max.100	Solventborne coatings	Low molecular weight "1-type" epoxy resin
CYCLOALIPHATIC EPOXY RESINS							
CHS-EPOXY® 560	0,5–1,3	5,50–6,10			max.1*	Outdoor transformers, insulators, bushings	Hexahydrophthalic acid diglycidyl ester

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

All products are also available as EnviPOXY® — Epoxy Resins with a renewable content up to 33,5%

MODIFIED EPOXY RESINS

Product	Viscosity (Pa.s, 25 °C)	Epoxy index (mol/kg)	EEW (g/mol)	Hydrolyzable chlorine (%)	Colour (APHA, Gardner*)	Application	Description
MODIFIED LIQUID EPOXY RESINS							
CHS-EPOXY® 324	20,0–60,0	3,0–3,4	294–333		max.300	Adhesives for metals, wood, ceramics	Epoxy resin modified with a nonreactive diluent
CHS-EPOXY® 455	2,0–4,0	4,3–4,8	208–232		max.100	Adhesives, civil engineering and composites	Epoxy resin modified with a nonreactive diluent
CHS-EPOXY® 474	0,3–0,6	4,5–4,9	204–223		max.100	Composites, coatings, applications in civil engineering, casting compounds	Epoxy resin modified with monofunctional reactive diluent
CHS-EPOXY® 498	0,5–0,7	4,8–5,1	196–208		max.100	Civil engineering, potting and impregnation	Epoxy resin modified with monofunctional reactive diluent
CHS-EPOXY® 512	2,5–4,1	4,3–4,8	208–233		max.100	Casting, composites, adhesives, construction (bonding agent for mortar, concrete and high chemical resistance compositions)	Epoxy resin modified with nonreactive diluent
CHS-EPOXY® 517	0,55–0,95	4,3–4,7	213–233		max.100	Casting, composites, adhesives, construction (bonding agent for mortar and concrete)	Epoxy resin modified with reactive diluent
CHS-EPOXY® 521	0,6–0,9	4,85–5,1	196–206		max.100	Composites, potting, solventless coatings, civil engineering	Epoxy resin modified with monofunctional reactive diluent
CHS-EPOXY® 531	1,5–2,3	5,5–5,7	175–182		max.100	Composites, solventless coatings and impregnations, construction (bonding agent for mortar, concrete and food industry compositions)	Epoxy resin modified with bifunctional reactive diluent
CHS-EPOXY® 582	0,64–0,72	5,8–6,1	165–173		max.100	Casting, composites, polymer concretes and mortars	Epoxy resin modified with bifunctional reactive diluent
CHS-EPOXY® 619	0,4–0,9	5,9–6,5	155–170	max. 0,2	max.100	High performance laminating, potting, solventless coatings and impregnation	Epoxy resin modified with trifunctional reactive diluent
MODIFIED SOLID EPOXY RESINS							
CHS-EPOXY® 112 4F0,5	0,5–1,0[2]	1,05–1,11	900–950			Powder coatings	Modified by 0,5% of flow control agent
CHS-EPOXY® 112 4F5	0,5–1,0[2]	0,90–1,10	910–1 110			Powder coatings	Modified by 5% of flow control agent
CHS-EPOXY® 130 4F10	0,3–0,6[2]	1,10–1,30	770–910			Powder coatings	Modified by 10% of flow control agent
CHS-EPOXY® 141 4F5	0,35–0,5[2]	1,30–1,45	690–770			Powder coatings	Modified by 5% of flow control agent
CHS-EPOXY® 160 4F2,5	0,25–0,45[2]	1,50–1,70	590–670			Powder coatings	Modified by 2,5% of flow control agent
BROMINATED EPOXY RESINS							
CHS-EPOXY® B 200 M 80	1,1–2,3	1,8–2,3	435–556	max. 0,1	max.1*	Prepregs for printed circuits boards, laminates	80% solution of brominated (21% wt.) medium molecular weight epoxy resin, dissolved in methyl ethyl ketone

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EPOXY RESINS SOLUTIONS

CHS-EPOXY® 101 X 60	2,5–5,0				max.5*	Air-drying coatings, in the mixture with melamine- formaldehyde resins for the formulation of baking coatings	60% solution in xylene
CHS-EPOXY® 200 M 75	0–2,0	1,9–2,3	435–525	max. 0,015	max.1*	Production of prepreges	75% solution in methylethylketone
CHS-EPOXY® 200 M 80	2,5–5,5	2,0–2,4	410–500	max. 0,015	max.1*	Production of prepreges	80% solution in methylethylketone
CHS-EPOXY® 210 X 75	5,0–12,0	2,0–2,3	445–500		max.1*	High performance 2K coating materials such as anticorrosion primers, baking coatings	75% solution in xylene
CHS-EPOXY® 222 IX 60	0,2–0,4	1,8–2,3	430–555		max.3*	Anticorrosive paint in marine and railway industry, gas industry, insulation of building, sewage pipes and reservoirs	60% solution in solvent blend
CHS-EPOXY® 301 X 80	5,5–7,5	2,7–3,3	300–370		max.1*	High solid coatings, anticorrosion primers, baking lacquers, treatment of metal surfaces	80% solution of semisolid epoxy resin in xylene
CHS-EPOXY® 411 X 80	0,6–0,8	3,9–4,2	238–256		max.100	High solid coatings, anticorrosion primers, baking lacquers	80% solution of semisolid epoxy resin in xylene
CHS-EPOXY® 520 M 80	0,04–0,05	4,1–4,4[3]	227–244[3]		max.300	High solid coatings, prepregs	80% solution in methylethylketone

EPOXY RESIN FOR WATERBORNE SYSTEMS

CHS-EPOXY® 200 V 55	0,1–0,7	1,88–2,22	455–525			Varnish and binder of paints for wood, wood fibre boards, concrete, metals and other materials	Water dispersion of a low molecular weight epoxy resin

EPOXY RESINS BASED ON BPA/F

CHS-EPOXY® 501	0,6–0,8	5,0–5,3	188–200	max. 0,1	max.100	Composites, high solid, anticorrosion paints, civil engineering, casting	BPA/F resin modified by monofunctional reactive diluent
CHS-EPOXY® 514	0,8–1,1	5,1–5,4	185–196	max. 0,1	max.100	Composites, high solid, anticorrosion paints, civil engineering, casting	BPA/F resin modified by monofunctional reactive diluent
CHS-EPOXY® 571	6,0–8,0	5,4–5,7	175–185	max. 0,03	max.100	Coatings, penetrants, filled systems, casting applications and insulating materials	BPA/F epoxy resin
CHS-EPOXY® 572	4,5–7,0	5,5–5,8	172–182	max. 0,03	max.100	Coatings, penetrants, filled systems, casting applications and insulating materials	BPA/F epoxy resin
CHS-EPOXY® 573	8,0–10,5	5,3–5,6	179–189	max. 0,03	max.100	Coatings, penetrants, filled systems, casting applications and insulating materials	BPA/F epoxy resin
CHS-EPOXY® 574	1,4–1,7	5,5–5,75	174–182	max. 0,1	max.100	Composites, civil and electrical engineering, high-solid coatings	BPA/F resin modified by difunctional reactive diluent
CHS-EPOXY® 575	0,7–0,9	5,6–5,9	169–179	max. 0,1	max.100	Solventless coatings, penetrants, filled systems, casting applications and insulating materials, high solid coatings	BPA/F resin modified by difunctional reactive diluent

waterborne

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

All products are also available as EnviPOXY® — Epoxy Resins with a renewable content up to 33,5%

HARDENERS

Product	Viscosity (mPa.s, 25 °C)	Amine number (mg KOH/g)	HEW (g/mol)	Application	Description
TELALIT® 0240	5–50		24	Standard, civil engineering, composites, adhesives	Aliphatic amine, substitution of CHS-HARDENER P 11
TELALIT® 0343	400–1 200	850–1 200	34	Composites, civil engineering	Aliphatic adduct
TELALIT® 0420	10–25	600–650	42	Composites, higher Tg	Cycloaliphatic amine
TELALIT® 0430	5–50	1 250–1 320	43	Composites, civil engineering, faster curing, higher toughness	Cycloaliphatic amine
TELALIT® 0492	15–30	550–600	49	Composites, civil engineering	Modified cycloaliphatic amine
TELALIT® 0500	5–50	1 100–1 200	50	Composites, accelerated	Cycloaliphatic amine
TELALIT® 0590	5–10	440–490	59	Composites, long pot life	Polyoxyetheramine
TELALIT® 0600	80–120	450–500	62	High performance composites, long pot life, highest Tg	Modified cycloaliphatic amine
NEW TELALIT® 0642	550–1 050	440–490	64	Construction industry, production of adhesives and composites requiring fast curing, even at temperatures below 10 °C	Modified cycloaliphatic amine
TELALIT® 0842	1 100–1 900	min. 290	84	Hardening in wet conditions, applicable in different weather conditions	Solvent-free system, under water curing
TELALIT® 0903	200–500	320–350	90	Self-levelling flooring, nonylphenol free, low yellowing	Modified cycloaliphatic adduct
TELALIT® 95	110–210	300–500	95	Self-levelling flooring	Modified cycloaliphatic adduct
TELALIT® 1040	10–30	230–260	104	Waterborne coatings, high solid coatings, nonylphenol free	Polyoxyetheramine
TELALIT® 1203 NF	50–400	250–300	120	For high solid coatings, nonyl phenol free	Modified cycloaliphatic adduct
NEW TELALIT® 2433 VBG 50	1 000–2 000	130–150	243	Waterborne systems	Modified polyamine adduct (substitution for TELALIT® 180)
TELALIT® 3404 X 70	700–2 000	145–165	340	Anticorrosive coatings, nonylphenol free	Polyaminoamide
NEW TELALIT® 3509 IX 50	200–700	110–135	350	Lacquers, anticorrosive coatings	Modified aliphatic adduct (substitution for TELALIT® 160)

REACTIVE DILUENTS

Product	Viscosity (mPa.s, 25 °C)	EPOXY index (mol/kg)	Hydrolyzable chlorine (%)	Colour (APHA, Gardner*)	Application	Description
CHS-EPOXY® RR 300	40–90	2,90–3,30	max. 0,3	max.2*	Flexibilizer, low toxicity, reduced reactivity, limited diluting power	Polypropyleneglycol diglycidyl ether
CHS-EPOXY® RR 330	5–10	2,94–3,70	max. 0,1	max.1*	Low toxicity, reduced reactivity, limited diluting power	C12-C14 alkyl glycidyl ether
CHS-EPOXY® RR 690	130–200	7,20–7,70	max. 0,1	max.1*	Excellent mechanical strength and reactivity, hot water and solvent resistance, limited diluting power	Trimethylol propane triglycidyl ether
CHS-EPOXY® RR 700	15–25	6,70–7,20	max. 0,2	max.1*	Excellent reactivity at low temperatures and good solvent resistance, high mechanical strength, limited acid resistance	1, 6-hexanediol diglycidyl ether
CHS-EPOXY® RR 800	10–25	7,60–8,10	max. 0,2	max.1*	Excellent reactivity at low temperatures and good solvent resistance, high mechanical strength, limited acid resistance	1, 4-butanediol diglycidyl ether

SPECIALTY EPOXY SYSTEMS

Our Specialty Epoxy Systems portfolio covers these applications:

– Electro & Electronics
– Composites
– Construction & Flooring

EnviPOXY® Systems FROM FOSSIL **TO RENEWABLES**

EnviPOXY® Systems are based on the liquid **EnviPOXY® Resin** containing the maximum renewable content of 33,5%*.

Thanks to the experts in our R&D centers, we are ready to develop top performance products with **high renewable content** that address customer-specific needs.

*calculated value

SPECIALTY EPOXY RESIN SYSTEMS FOR ELECTRO & ELECTRONIC

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Viscosity (mPa.s)	Pot-life	Description
NEW INSULATORS, BUSHINGS, SWITCHGEAR						
CHS-EPODUR® Envi 520-1787	A/B/C1/D1	100/90/0,5/5/360 [4]	105–115	5 000/60 °C	1–2 h/80 °C	Epoxy resin and special hardener with low tendency to crystalize. Preferred for high and medium voltage applications.
CHS-EPODUR® Envi 494-1667	A/B/C2/D2	100/78/0,8/5/405 [4]	100–115	25 000/45 °C 8 000/60 °C	2 h/60 °C	Modified epoxy resin and hardener system suitable for high and medium voltage applications.
CHS-EPODUR® Envi 494-1667	A/B/C2	100/78/0,6/380 [4]	110–125	18 000/45 °C 7 000/60 °C	2 h/60 °C	Modified epoxy resin and hardener system suitable for high and medium voltage applications.
CHS-EPODUR® Envi 494-1718	A/B	100/ 81/ 323 [4]	95–105	5 000/60 °C	1–2 h/80 °C	Modified epoxy resin and special hardener with low tendency to crystalize. System with very good toughness.
CHS-EPODUR® Envi 520-1718	A/B	100/ 85/ 291 [4]	105–115	4 000/60 °C	2–3 h/60 °C	Epoxy resin and special hardener with low tendency to crystalize. Preferred for switchgear.
CHS-EPODUR® Envi 467-1637	A/B	100/ 75/ 345 [4]	105–115	6 000/60 °C	1–2 h/60 °C	Modified epoxy resin and hardener system suitable for high and medium voltage applications.
NEW INSTRUMENT & DISTRIBUTION TRANSFORMERS						
CHS-EPODUR® Envi 520-1787	A/B/C1/D1	100/85/0,5/15/370 [4]	75–85	5 000/60 °C	1–2 h/80 °C	Epoxy resin and special hardener with low tendency to crystalize. System with very good toughness.
CHS-EPODUR® Envi 531-1787	A/B/C1/D1	100/85/0,5/10/370 [4]	70–85	20 000/45 °C 8 500/60 °C	1–2 h/80 °C	Modified epoxy resin and special hardener with low tendency to crystalize. System with very good toughness and higher degree of filling.
CHS-EPODUR® Envi 531-1787	A/B/C1/D3	100/85/0,5/18/343 [4]	50–55	8 000/45 °C 3 500/60 °C	4 h/60 °C	Modified epoxy resin and special hardener. System with very good toughness. For distribution transformers up to – 60 °C.
CHS-EPODUR® Envi 494-1667	A/B/C2/D4	100/85/0,6/17/385 [4]	60–75	4 000/60 °C	1–2 h/80 °C	Modified resin and hardener system. High degree of filling.
CHS-EPODUR® Envi 494-1718	A/B/D1	100/77/5/340 [4]	85–95	18 000/45 °C 7 000/60 °C	1–2 h/80 °C	Modified epoxy resin and special hardener with low tendency to crystalize. System with very good toughness.
CHS-EPODUR® Envi 520-1718	A/B/D3	100/85/15/321 [4]	75–85	4 000/ 60 °C	2 h/60 °C	Modified resin and hardener system. Very good toughness.
CHS-EPODUR® Envi 485-1737	A/B	100/87/297 [4]	80–95	2 300/70 °C	2 h/80 °C	Modified epoxy resin and special hardener. System with very good toughness and longer pot-life. For distribution transformers.
CHS-EPODUR® Envi 485-1747	A/B	100/87/297 [4]	80–95	1 300/80 °C	5 h/60 °C	Modified epoxy resin and special hardener. System with very good toughness and longer pot-life. For distribution transformers.
NEW PREFILLED SYSTEMS						
SADURIT® Envi 520-1988	A/B	100/100	110–125	3 500/60 °C	8 h/40 °C; 2–3 h/60 °C	Excellent crack resistance at low temperatures, good toughness. UL 94 HB. High Tg.
SADURIT® Envi 520-1987	A/B	100/100	120–130	4 000/60 °C	6 h/40 °C; 1–2 h/60 °C	UL 94 V0. High Tg.
SADURIT® Envi 494-1667	A/B	100/85	60–70	4 000/60 °C	6 h/40 °C; 2–3 h/60 °C	Excellent crack resistance at low temperatures, good toughness. UL 94 HB.
SADURIT® Envi 560-1987	A/B	100/100	80–90	5 000/60 °C	6 h/40 °C; 1–2 h/60 °C	Cycloaliphatic resin for outdoor application. Excellent crack resistance at low temperatures, good toughness. UL 94 HB.
SADURIT® Envi H 560-1687	A/B	100/100	90–105	5 000/60 °C	2 h/60 °C	HCEP system. Excellent crack resistance at low temperatures, good toughness.

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

CHS-EPODUR® Envi and SADURIT® Envi are based on EnviPOXY® Resin with a maximum renewable content of 33.5%.

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Viscosity (mPa.s)	Pot-life	Description
NEW						
LOW VOLTAGE CASTING, ENCAPSULATING AND POTTING						
CHS-EPODUR® Envi 531-0522	A / B	100 / 13	100–110	6 000 / 25 °C	2 h/25 °C/1 000 g	Room temperature cured modified resin system with long potlife. 2K with prefilled component A.
NEW						
SPECIAL CASTING SYSTEMS						
VEROPAL 520-1987	A / B	100 / 220	95–110	4 000 / 25 °C; 400 / 60 °C	4 h/60 °C	2K system with prefilled hardener. Low viscosity system.
VEROPAL 520-1668	A / B	100 / 220	95–110	4 000 / 25 °C; 400 / 60 °C	4 h/60 °C	2K system with prefilled hardener. Low viscosity system. Excellent crack resistance.
CHS-EPODUR® Envi 520-1997	A / B / C3	100 / 95 / 0,5 / 350 [4]	165–175	5 000 / 60 °C	4 h/60 °C	Epoxy resin and special hardener with high Tg.

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Viscosity (mPa.s)	Pot-life	Description
OUTDOOR APPLICATIONS – CEP SYSTEMS						
CHS-EPODUR® Envi 560-1887	A / B / C1	100 / 90 / 0,5 / 360 [4]	90–100	5 000 / 60 °C	1–2 h/60 °C	Cycloaliphatic resin and modified hardener system with very good UV resistance.
CHS-EPODUR® Envi 560-1787	A / B / C2	100 / 90 / 0,4 / 375 [4]	80–90	5 000 / 60 °C	1–2 h/60 °C	Cycloaliphatic resin and modified hardener system with very good UV resistance. Excellent toughness.
CHS-EPODUR® Envi 560-1577	A / B / C2	100 / 90 / 0,5 / 370 [4]	105–115	6 000 / 60 °C	1–2 h/60 °C	Cycloaliphatic resin and hardener system with very good UV resistance. High Tg.
OUTDOOR APPLICATIONS – HCEP SYSTEMS – HYDROPHOBIC						
NEW CHS-EPODUR® Envi 504-1577	A / B / C2 / D5	100 / 82 / 0,35 / 10 / 371 [4]	75–95	2 200 / 60 °C	1–2 h/60 °C	Hydrophobic cycloaliphatic resin and hardener system with very good UV resistance.
NEW CHS-EPODUR® Envi 561-1577	A / B / C2 / D5	100 / 90 / 0,5 / 10 / 390 [4]	105–115	4 000 / 60 °C	2 h/60 °C	Hydrophobic cycloaliphatic resin and hardener system with very good UV resistance. High Tg.

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

CHS-EPODUR® Envi and SADURIT® Envi are based on EnviPOXY® Resin with a maximum renewable content of 33.5%.

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Gel Time (10g/50g min)	Description
SUPPLEMENTARY PRODUCTS					
REPAIRING MATERIAL					
VEROPAL® 520-T17M	A / B	100 / 17	90–110	10–20 / 5–10	Repairing epoxy system for indoor applications. Component A with common filler and component B without filler.
VEROPAL® 560-T17M	A / B	100 / 15	80–95	10–20 / 5–10	Repairing epoxy system for indoor applications. Component A with wollastonite filler and component B without filler.
FIXATION – THIXOTROPIC SYSTEMS					
VEROPAL® T520-T17M	A / B	100 / 17	90–110	10–20 / 5–10	Fixation thixotropic epoxy system for indoor applications. Component A and B without filler.
RELEASE AGENTS (SEPARATORS)					
VEROPAL® RA 100					Solvent free liquid mould release agent for epoxy and polyurethane materials. Temperature stable up to 300 °C.
VEROPAL® RA 100 LV					Release agent similar to VEROPAL® RA 100 with lower viscosity intended for spraying.

Product	Application	RAL	Colour
PIGMENT PASTES – INDOOR			
E-pasta BF 135M-BA	Indoor	RAL3013	Tomato red
E-pasta BF 160M-BA	Indoor	RAL3011	Brown red
E-pasta BF 661-BA	Indoor	RAL8016	Mahogany Brown
E-pasta BF 662LV-BA	Indoor	RAL8016	Mahogany Brown, low viscosity
E-pasta BF 645T LV-BA	Indoor	RAL8016	Mahogany Brown, thermal stability
E-pasta BF 318-BA	Indoor	RAL9011	Graphite black
E-pasta FW 200-BA	Indoor	RAL9017	Traffic black
E-pasta KRBF 2478-BA	Indoor	RAL7024	Graphite grey
E-pasta MIX 7032-BA	Indoor	RAL7032	Pebble grey
E-pasta HB 550-BA	Indoor	RAL5005	Signal blue
E-pasta LG 5G-BA	Indoor	RAL6032	Signal green
E-pasta GN-M-BA	Indoor	RAL6025	Fern green
E-pasta BFO 130M-BA	Indoor	RAL2003	Pastel Orange
E-pasta PY 6615-BA	Indoor	RAL1016	Sulphur yellow

Product	Application	RAL	Colour
PIGMENT PASTES – OUTDOOR			
E-pasta BF 1135M-OD	Outdoor	RAL3013	Tomato red
E-pasta BF 1660-OD	Outdoor	RAL8016	Mahogany Brown
E-pasta BF 1318-OD	Outdoor	RAL9011	Graphite black
E pasta MIX 7035-OD	Outdoor	RAL7035	Light grey
E-pasta KRBF 4478-OD	Outdoor	RAL7024	Graphite grey

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

EPOXY RESIN SYSTEMS FOR COMPOSITES

NEW FILAMENT WINDING & PULTRUSION SYSTEMS

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Viscosity (mPa.s)	Pot-life	Description
CHS-EPODUR® Envi 494-1667	A/B/C2	100/85/1	115–125	500–1 000 [5]	> 10 h/25 °C	System with medium viscosity cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 520-1687	A/B/C2	100/90/1	130–145	500–1 000 [5]	> 10 h/25 °C	System with long pot life and with medium viscosity cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 520-1667	A/B/C2	100/85/1	115–130	500–1 000 [5]	> 10 h/25 °C	System with medium viscosity cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 520-1997	A/B/C3	100/95/1	165–175	1 000–1 200 [5]	> 10 h/25 °C	System with high thermal resistance and with post curing above 160 °C
CHS-EPODUR® Envi 520-1787	A/B/C1/D1	100/85/0,5/10	85–95	1 500–2 000 [5]	> 10 h/25 °C	System with great mechanical properties and long pot life cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 574-0522	A/B	100/30	85–100	200–500 [5]	1–2 h/25 °C	System with slow reactivity cured at ambient temperature

NEW HAND LAY-UP, INFUSION & INJECTION SYSTEMS, RTM

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Viscosity (mPa.s)	Pot-life	Description
CHS-EPODUR® Envi 582-0512/0492/0502/0482/0590	A/B	100/30	90–115	200–400 [5]	0,3–4 h/25 °C	Combination of one resin with five hardeners, low viscosity with fast to slow reactivity. Optimal for infusion
CHS-EPODUR® Envi 574-0512/0492/0502/0482/0590	A/B	100/28	90–115	350–650 [5]	0,3–4 h/25 °C	Combination of one resin with five hardeners, medium viscosity with fast to slow reactivity. Optimal for hand lay-up
CHS-EPODUR® Envi 581-0542/0562	A/B	100/32	80–85	200–250 [5]	1–2 h/25 °C	Combination of one resin with two hardeners, low viscosity with fast to slow reactivity. Optimal for wind mill blades
CHS-EPODUR® Envi 582-0600	A/B	100/37	130–150	350–550 [5]	2–3 h/25 °C	System with slow reactivity, low viscosity and great mechanical properties
CHS-EPODUR® Envi 582-0420	A/B	100/25	120–130	300–450 [5]	0,5–1 h/25 °C	System with medium reactivity, low viscosity and great mechanical properties
CHS-EPODUR® Envi 619-0600	A/B	100/40	115–130	200–500 [5]	2–3 h/25 °C	System with slow reactivity and great mechanical properties. Optimal for hand lay-up
CHS-EPODUR® Envi 619-0492	A/B	100/32	80–90	200–500 [5]	12–30 min/25 °C	System with medium reactivity and great mechanical properties. Optimal for hand lay-up
CHS-EPODUR® Envi 621-0600	A/B	100/40	115–130	500–800 [5]	0,5–1 h/25 °C	System with slow reactivity and great mechanical properties. Optimal for hand lay-up
CHS-EPODUR® Envi 621-0492	A/B	100/32	85–100	300–500 [5]	20–40 min/25 °C	System with medium reactivity and great mechanical properties. Optimal for hand lay-up
CHS-EPODUR® Envi 520-1787	A/B/C1/D1	100/85/0.5/10	85–95	1 500–2 000 [5]	> 10 h/25 °C	System with long pot life and great mechanical properties cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 520-1687	A/B/C2	100/90/1	130–145	5 500–1 000 [5]	> 10 h/25 °C	System with long pot life and low viscosity cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 520-1667	A/B/C2	100/85/1	115–130	500–1 000 [5]	> 10 h/25 °C	System with low viscosity cured at higher temperature (at least 80 °C)
CHS-EPODUR® Envi 520-1997	A/B/C3	100/95/1	165–175	1 000–1 200 [5]	> 10 h/25 °C	System with high thermal resistance with post curing above 160 °C
CHS-EPODUR® Envi 574-0904	A/B	100/50	70–80	1 600–2 200 [5]	12-15 min/25°C	Medium-viscosity epoxy laminating system with high adhesion to duralumin, steel and other metal surfaces

CHS-EPODUR® Envi products are based on EnviPOXY® Resin with a maximum renewable content of 33.5%.

PREPREG MATRIX SYSTEMS

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Viscosity (mPa.s)	Pot-life	Description
CHS-EPODUR® Envi 525-0269	A / B / C55	100 / 12 / 0–3	115–135	14 000 / 23 °C 1 500 / 40 °C	2–8 h /25 °C [12]	Solvent free epoxy prepregging system with chemically induced B-stage, adjustable tack/ drapability. For cold, simple equipped processing. Recommended for general industrial and sport & leisure applications
NEW CHS-EPODUR® Envi 411-0269	A / B / C55	100 / 9 / 0–2	120–128	9 800 / 55 °C 2 700 / 70 °C	0,5–2 h /25 °C [12]	Solvent free epoxy system for hot-melt prepregging, adjustable tack. For industrial and sport & leisure composite applications
NEW CHS-EPODUR® Envi N 554-0249	A / B / C55	100 / 10 / 0–3	120–165	10 000 / 40 °C 2 000 / 55 °C	1–4 h /25 °C [12]	Solvent free epoxy system for hot-melt prepregging, adjustable tack/drapability. For applications with higher temperature resistence

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

EPOXY RESIN SYSTEMS FOR CONSTRUCTION & FLOORING

Product	Components	Mixing ratio (pbw)	Application	Description
COATING SYSTEMS				
IMPREGNATION & PRIMERS				
💧 EPOSTYL® 200 V	A / B	100 / 26 [6]	Primer/penetrating sealer	Special waterborne epoxy system
CHS-EPODUR® 474 PRIMER	A / B	100 / 23	Bonding agent, primer for bridges, roads, pavements, flooring	Low viscosity system with excellent water insulation
NEW CHS-EPODUR® 474 PRIMER FAST	A / B	100 / 30	Bonding agent, primer	Low viscosity epoxy system for use at lower temperature
NEW SADURIT® 474 PRIMER	A/B	100/14	Primer for concrete substrates	Prefilled epoxy system
INDUSTRIAL FLOOR TOPCOATS				
SADURIT® Z 1	A / B	100 / 25	Topcoat for floors suitable for interior and exterior use	Solvent based epoxy system with high mechanical & chemical resistance. Different colours upon request (based on RAL)
💧 EPOSTYL® 215 V	A / B	100 / 14 [6]	Matt topcoat for concrete, useable in poorly ventilated rooms, vapour permeable	Waterborne epoxy system. Different colours upon request (based on RAL)
EPOSTYL® 521-01	A / B	100 / 30	Topcoat for floors	Solvent–free epoxy system with higher UV resistance. Different colours upon request (based on RAL)
💧 EPOSTYL® 200 V MAT	A / B	100 / 21 [6]	Matt topcoat for flooring, parquets and other surfaces	Special matt waterborne epoxy system
TRANSPARENT LACQUERS				
💧 EPOSTYL® 200 V	A / B	100 / 26 [6]	Glossy topcoat for interior applications on wood, concrete and metal	Special waterborne epoxy system
💧 EPOSTYL® 200 V MAT	A / B	101 / 21 [6]	Matt topcoat for flooring, parquets and other surfaces	Special matt waterborne epoxy system
FLOORING SYSTEMS				
DECORATIVE FLOORING				
EPOSTYL® 521-01	A / B	100 / 30	Universal self-levelling flooring system	Solvent free epoxy system. Different colours upon request (based on RAL)
INDUSTRIAL & ANTI-STATIC FLOORS				
EPOSTYL® 521-01	A / B	100 / 30	Universal self-levelling flooring system	Solvent free epoxy system. Different colours upon request (based on RAL)
EPOSTYL® 521-01 AS	A / B	100 / 30	Pigmented self-levelling flooring system, chemically resistant and antistatic. Suitable for interior.	Solvent–free epoxy system
BINDERS FOR STONE CARPET				
CHS-EPODUR® STONE	A / B	100 / 43 [7]	Pavements, flooring	Special epoxy system for stone carpets
CHS-EPODUR® STONE UV	A / B	100 / 43 [7]	Pavements, flooring	Special epoxy system for stone carpets with improved UV stability

💧 waterborne

All products are also available as EnviPOXY® — Epoxy Resins with a renewable content up to 33,5%

Product	Hardener	Components	Mixing ratio (pbw)	Application	Description
BINDERS FOR POLYMERCONCRETE & POLYMERMORTAR					
CHS-EPOXY® 455	TELALIT® 0240		100 / 10[7]	Binder for polymer mortars and concretes, adhesives	Solvent–free epoxy system with high chemical resistance
	TELALIT® 0492		100 / 23[7]	Binder for polymer mortars and concretes, coatings, chemical anchors	Solvent–free epoxy system with excellent mechanical properties
	TELALIT® 0642		100 / 29[7]	Binder for polymer mortars and concretes, adhesives	Solvent–free epoxy system with high chemical resistance
CHS-EPOXY® 474	TELALIT® 0492		100 / 23[7]	Binder for polymer mortars and concretes, chemical anchors	Solvent–free epoxy system with excellent mechanical properties
	TELALIT® 0642		100 / 30[7]	Binder for polymer mortars and concretes, coatings, chemical anchors	Solvent–free free epoxy system with very fast curing at low temperatures and in humid conditions
CHS-EPOXY® 512	TELALIT® 0240		100 / 10[7]	Binder for polymer mortars and concretes	Solvent–free epoxy system with curing at low temperatures
	TELALIT® 0642		100 / 30[7]	Binder for polymer mortars and concretes, adhesive bridge	Special solvent–free epoxy system with very fast curing at low temperatures and in humid conditions
CHS-EPOXY® 517	TELALIT® 0240		100 / 11[7]	Binder for polymer mortars and concretes, adhesives	Solvent–free epoxy system with high chemical resistance
	TELALIT® 0642		100 / 33[7]	Binder for polymer mortars and concretes, chemical anchors	Special solvent–free epoxy system with very fast curing at low temperatures and in humid conditions
CHS-EPOXY® 531	TELALIT® 0240		100 / 12[7]	Binder for polymer mortars and concretes	Solvent–free system with high chemical resistance
	TELALIT® 0642		100 / 36[7]	Binder for polymer mortars and concretes	Special solvent–free epoxy system with very fast curing at low temperatures and in humid conditions
ADHESIVES FOR CONSTRUCTION					
CHS-EPOXY® 512	TELALIT® 0240		100 / 10	For standard temperatures & higher chemical resistance	Epoxy system with higher chemical resistance at standard temperatures
CHS-EPOXY® 324	TELALIT® 0240		100 / 7	For standard temperatures, good chemical resistance	Special epoxy system with great chemical resistance at standard temperatures
CHS-EPOXY® 324	TELALIT® 0343		100 / 11	For metals, wood, glass	Standard epoxy system with higher viscosity, resistant up to 60 °C and with balanced shear and peel strength
CHS-EPODUR® 520-2608			100/140	For metals, wood, ceramics, and polymer composites	Unique two-component hybrid epoxy structural adhesive combining high elongation up to 55% with exceptional peel and shear strength

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

All products are also available as EnviPOXY® — Epoxy Resins with a renewable content up to 33,5%

ALKYD RESINS

We have over 70 years of tradition as a manufacturer of alkyd resins produced using fusion technology (aromatic free products). Our wide-ranging product portfolio includes long, medium, and short oil alkyds which are either waterborne (CHS-HYDROSPOL®), solventborne, high solid, or solvent-free (CHS-ALKYD®).

In addition to the standard assortment of solventborne alkyds, our portfolio includes the following types of sustainable and environmentally friendly alkyds:

- **high BIO content up to 92%**
- **solvent-free**
- **high solid with low VOC**
- **waterborne**

Our R&D teams work hard on to develop products that add real value to your business. This effort has resulted in a portfolio of special tailor made alkyd resins with exceptional properties; these alkyd resins have proven high-performance properties while respecting aesthetic, protective, and application requirements.

BINDERS FOR INDUSTRIAL COATINGS

Product	Oil length (%)	Type of Oil or FA	Solvent	Viscosity (Pa.s, 23 °C)	Non-volatile content (%)	Acid value (mg KOH/g)	Colour (I_2 mg/100 cm^3)	Description
CHS-ALKYD® F 261 X 60	26	Vegetable drying oil	X	2,0–3,0	59,0–61,0	max.8	max.5	Fast drying universal alkyd resin with excellent corrosion protection and mechanical properties, high hardness and low yellowing
CHS-ALKYD® AKS 261 X 60	26	Vegetable drying oil	X	1,0–3,0	58,0–62,0	max.10	max.7	Super fast drying acrylated alkyd resin, superior corrosion resistance, low yellowing and improved flexibility
NEW CHS-ALKYD® S 330 X 60	33	Vegetable drying oil	X	3,1–4,1	58,5–61,5	max.8	max.10	Super fast drying universal alkyd resin with excellent corrosion protection for one layer coatings
CHS-ALKYD® TU 341 X 60	34	TOFA, DFA	X	4,0–5,0	58,0–62,0	max.7	max.8	Fast drying urethane alkyd resin with exceptional corrosion resistance, weather durability, and strong adhesion to both ferrous and light metals
CHS-ALKYD® C 351 E 75	39	FA	E	3,5–4,5	73,5–76,5	max.7	max.10	Stoving alkyd resin for baking or nitrocelulose coatings
CHS-ALKYD® AL 3701	37	TOFA	X	1,9–2,5	59,0–61,0	13–18	max.30	Lift resistant alkyd resin with high hardness. Suitable for primers, anticorrosive coatings, topcoats and for one-layer applications
CHS-ALKYD® S 401 X 55	40	Vegetable drying oil	X	0,8–1,2	53,5–56,5	max.7	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
CHS-ALKYD® S 401 X 60	40	Vegetable drying oil	X	2,0–4,0	58,5–61,5	max.7	max.7	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD S 405 N 60	40	Vegetable drying oil	N	3,0–7,0	59,0–61,0	max.8	max.10	**Non-aromatic** alkyd resin. Suitable for primers, anticorrosive coatings and enamels especially for metal substrates
CHS-ALKYD® S 471 X 60	47	Vegetable drying oil	X	0,8–1,7	58,0–62,0	max.6	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
CHS-ALKYD® S 472 X 60	47	Vegetable drying oil	X	1,7–2,1	58,0– 62,0	max.6	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD® S 475 X 70	47	Vegetable drying oil	X	2,0–5,5	68,0–72,0	max.10	max.12	Alkyd resin with **low VOC content**. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD® S 475 N 70	47	Vegetable drying oil	N	5,0–10,0	69,0–71,0	max.10	max.15	Solventborne **non-aromatic** alkyd resin. Suitable for primers, anticorrosive coatings and one-layer coatings
CHS-ALKYD® S 491 W 55	49	Vegetable drying oil	W	2,5–5,5	54,0–56,0	max.6	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
CHS-ALKYD® TU 497 S 57	49	TOFA	S	1,5–4,0	55,5–58,5	max.4	max.8	Fast drying alkyd resin with outstanding adhesion, corrosion and weathering resistance. Suitable for primers and single-layer coatings for iron and light metals
CHS-ALKYD® S 622 W 55	62	Vegetable drying oil	W	0,6–1,1	54,0–56,0	max. 5,5	max. 6	Alkyd resin suitable for enamels, wood stains and lacquers for indoor and outdoor applications
CHS-ALKYD® S 622 X 70	62	Vegetable drying oil	X	2,0–3,0	68,0–72,0	max.7	max.10	Alkyd resin suitable for enamels, wood stains and lacquers for indoor and outdoor applications
CHS-ALKYD® SU 632 N 60	63	Vegetable drying oil	N	0,9–1,5	57,0–59,0	max.2	max.10	Fast drying **non-aromatic** alkyd resin with outstanding hardness and mar resistance, excellent mechanical properties and weather resistance. Suitable for primers for wood and metal
CHS-ALKYD® SU 632 NN 55	63	Vegetable drying oil	NN	0,8–1,6	55,0–57,0	max.2	max.10	Fast drying **non-aromatic** alkyd resin with outstanding hardness and mar resistance, excellent mechanical properties and weather resistance. Suitable for primers for wood & metal
CHS-ALKYD® SU 671 W 60	67	Vegetable drying oil	W	2,0–4,0	58,0–62,0	max.1	max.8	Fast drying urethanised alkyd suitable for coatings with high hardness
CHS-ALKYD® AL 2460	72	Linseed	NN	0,2–0,4	69,0–71,0	32–40		Alkyd resin suitable as a binder for foundry sand moulds

low VOC

Product Notes: **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C).

Solvents: **B** – Butanol, **BuG** – Butyl Glycol, **E** – Butyl Acetate, **M** – Methylethyl Ketone, **N** – Dearomatized W, **NN** – Dearomatised W with flash point over 61°C, **S** – Solvesso, **V** – Water, **W** – White Spirit, **X** – Xylene,
Type of oil/FA: **DFA** – Dimeric Fatty Acids, **FA** – Fatty Acids, **TOFA** – Tall Oil Fatty Acids, **DCO** – Dehydrated Castor Oil, **LA** – Linoleic acid

BINDERS FOR DECORATIVE COATINGS

Product	Oil length (%)	Type of Oil or FA	Solvent	Viscosity (Pa.s, 23 °C)	Non-volatile content (%)	Acid value (mg KOH/g)	Colour (I_2 mg/100 cm^3)	Description
CHS-ALKYD® F 261 X 60	26	Vegetable drying oil	X	2,0–3,0	59,0–61,0	max.8	max.5	Fast drying universal alkyd with excellent corrosion protection and mechanical properties, high hardness and low yellowing
CHS-ALKYD® AKS 261 X 60	26	Vegetable drying oil	X	1,5–3,0	58,0–62,0	max.10	max.7	Super fast drying acrylated alkyd resin, superior corrosion resistance, low yellowing and improved flexibility
CHS-ALKYD® S 401 X 55	40	Vegetable drying oil	X	0,8–1,2	53,5–56,5	max.7	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
CHS-ALKYD® S 401 X 60	40	Vegetable drying oil	X	2,0–4,0	58,5–61,5	max.7	max.7	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD® S 405 N 60	40	Vegetable drying oil	N	3,0–7,0	59,0–61,0	max.8	max.10	**Non-aromatic** alkyd resin. Suitable for primers, anticorrosive coatings and enamels especially for metal substrates
CHS-ALKYD® S 471 X 60	47	Vegetable drying oil	X	0,8–1,7	58,0–62,0	max.6	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD® S 475 X 70	47	Vegetable drying oil	X	2,0–5,5	68,0–72,0	max.10	max.12	Alkyd resin with **low VOC content**. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD® S 475 N 70	47	Vegetable drying oil	N	5,0–10,0	69,0–71,0	max.10	max.15	Solventborne **non-aromatic** alkyd resin. Suitable for primers, anticorrosive coatings and one-layer coatings
CHS-ALKYD® S 491 W 55	49	Vegetable drying oil	W	2,5–5,5	54,0–56,0	max.6	max.8	Cost effective alkyd resin. Suitable for primers and anticorrosive coatings
NEW CHS-ALKYD® TU 497 S 57	49	TOFA	S	1,5–4,0	55,5–58,5	max.4	max.8	Fast drying alkyd resin with outstanding adhesion, corrosion and weathering resistance. Suitable for primers and single-layer coatings for iron and light metals
CHS-ALKYD® S 622 W 55	62	Vegetable drying oil	W	0,6–1,1	54,0–56,0	max. 5,5	max. 6	Alkyd resin suitable for enamels, wood stains and lacquers for indoor and outdoor applications
CHS-ALKYD® S 621 W 60	62	Vegetable drying oil	W	1,1–2,3	58,5–61,5	max.7	max.7	Alkyd resin with high durability in outdoor conditions. Suitable for wood coatings
CHS-ALKYD® S 622 N 60	62	Vegetable drying oil	N	3,7–4,7	58,5–61,5	max.7	max.7	**Non-aromatic** universal alkyd resin with high durability in outdoor conditions
CHS-ALKYD® S 622 X 70	62	Vegetable drying oil	X	2,0–3,0	68,0–72,0	max.7	max.10	Alkyd resin suitable for enamels, wood stains and lacquers for indoor and outdoor application
CHS-ALKYD® S 623 NN 50	62	Vegetable drying oil	NN	0,31–0,56	48,5–51,5	max.5	max.10	**Non-aromatic** alkyd resin suitable for enamels, wood stains and lacquers for indoor and outdoor application
CHS-ALKYD® S 623 NN 60	62	Vegetable drying oil	NN	4,0–9,0	60,0–62,0	max.7	max.10	Universal **non-aromatic** alkyd resin
CHS-ALKYD® SU 632 N 60	63	Vegetable drying oil	N	0,9–1,5	57,0–59,0	max.2	max.10	Fast drying **non-aromatic** alkyd resin with outstanding hardness and mar resistance, excellent mechanical properties and weather resistance. Suitable for primers for wood & metal
CHS-ALKYD® SU 632 NN 55	63	Vegetable drying oil	NN	0,8–1,6	55,0–57,0	max.2	max.10	Fast drying **non-aromatic** alkyd resin with outstanding hardness and mar resistance, excellent mechanical properties and weather resistance. Suitable for primers for wood & metal

low VOC

Product Notes: **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C).

Solvents: **B** – Butanol, **BuG** – Butyl Glycol, **E** – Butyl Acetate, **M** – Methylethyl Ketone, **N** – Dearomatized W, **NN** – Dearomatised W with flash point over 61°C, **S** – Solvesso, **V** – Water, **W** – White Spirit, **X** – Xylene,
Type of oil/FA: **DFA** – Dimeric Fatty Acids, **FA** – Fatty Acids, **TOFA** – Tall Oil Fatty Acids, **DCO** – Dehydrated Castor Oil, **LA** – Linoleic acid

Product	Oil length (%)	Type of Oil or FA	Solvent	Viscosity (Pa.s, 23 °C)	Non-volatile content (%)	Acid value (mg KOH/g)	Colour (I_2 mg/100 cm^3)	Description
BINDERS FOR DECORATIVE COATINGS								
CHS-ALKYD® S 651 N 70	65	Vegetable drying oil	N	5,5–9,5	68,0–72,0	max.7	max.8	**Non-aromatic** alkyd resin for outdoor application. Suitable for enamels, lacquers and wood stains.
CHS-ALKYD® S 652 NN 70	65	Vegetable drying oil	NN	9,0–11,0	68,0–72,0	max.7	max.8	**Non-aromatic** alkyd resin with high durability in outdoor conditions
CHS-ALKYD® SU 671 W 60	67	Vegetable drying oil	W	2,0–4,0	58,0–62,0	max.1	max.8	Fast drying urethanised alkyd with high hardness suitable for coatings
CHS-ALKYD® S 670 NN 75	67	Vegetable drying oil	NN	2,5–3,5	74,0–76,0	max.7	max.10	**Non-aromatic** alkyd resin for outdoor applications. Suitable as a topcoat for wood and metals.
CHS-ALKYD® AL 8000	80	Linoleic rich FA		1,5–3,0[9]	97,0–100,0	max.10	max.30	Solvent free alkyd resin with low yellowing
NEW CHS-ALKYD® LA 810	82	LA		0,75–1,05	97,0–100,0	max.10	max.8	Solvent-free alkyd resin based on linoleic acid. Specifically formulated for high-performance wood coatings, stains, impregnations, and durable enamels.
CHS-ALKYD® TRI 841	84	TOFA, DCO		2,5–3,5	97,0–100,0	max.10	max.16	Fast drying solvent free alkyd resin with outdoor durability and low yellowing
CHS-ALKYD® TI 870	87	TOFA		2,2–3,2	97,0–100,0	max.8	max.15	Solvent free alkyd resin with low yellowing and high bio content. Suitable for wood coatings.
CHS-HYDROSPOL® D 870 F	87	TOFA	V	0,01–0,1	49,0–53,0	max.8	milky white	Fast drying waterborne alkyd resin with high bio content and improved UV stability. Suitable for wood coatings.
BINDERS FOR PRINTING INKS								
CHS-ALKYD® AL 6400	64	Linseed		62–82	100	4–15		Alkyd resin suitable for production of typhographic inks

high BIO content low VOC waterborne solvent-free

Product Notes: **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C).

Solvents: **B** – Butanol, **BuG** – Butyl Glycol, **E** – Butyl Acetate, **M** – Methylethyl Ketone, **N** – Dearomatized W, **NN** – Dearomatised W with flash point over 61°C, **S** – Solvesso, **V** – Water, **W** – White Spirit, **X** – Xylene,
Type of oil/FA: **DFA** – Dimeric Fatty Acids, **FA** – Fatty Acids, **TOFA** – Tall Oil Fatty Acids, **DCO** – Dehydrated Castor Oil, **LA** – Linoleic acid

ADDITIONAL PRODUCTS

VEROPAL® epoxy adhesives are high-performance two-component systems that form durable, structural bonds with high mechanical and chemical resistance. Their cross-linking polymer matrix cures with minimal shrinkage, effectively filling gaps and evenly distributing stress across diverse materials like metals, concrete, stone, wood, and ceramics.

Engineered for extreme durability, these adhesives withstand dynamic loads, moisture, solvents, UV exposure, and severe temperature fluctuations without degrading. This climate and environmental resilience makes them an ideal solution for both precision indoor applications and demanding outdoor construction or repair projects.

ADHESIVES

Product	Components	Mixing ratio (pbw)	Tg, DSC (°C)	Sheer Strenght (MPa)	Pot-life	Description
VEROPAL® QUICK	A / B	100 / 100	50–60	10–12	3 min/25 °C/10g	Unique, very fast epoxy adhesive (5 minutes curing time)
VEROPAL® SUPER	A / B	100 / 50	80–85	20–24	20 min/25 °C/10g	Structural adhesive with high elongation up to 55% with excellent peel and shear strength
VEROPAL® 14	A / B	100 / 100	60–70	20–24	60 min/25 °C/100g	Epoxy adhesive cured at room temperature. System is a thixotropic paste of high strength with good chemical resistance
VEROPAL® 15	A / B	100 / 140	70–80	20–24	25 min/25 °C/100g	Hybrid epoxy structural adhesive with high elongation and excellent peel and shear strengths

HYDROXIDES

Product	Modification	Concentration of NaOH (%)	Na_2CO_3 (%)	Chlorides Cl- (ppm)	Fe (ppm)	SO_4^{2-} (ppm)	PO_4^{3-} (ppm)	Heavy metals as Pb (ppm)	Description
SODIUM HYDROXIDE									
NaOH - LIQUID		> 48	< 0,5	< 50	< 5				Clear, colourless liquid
NaOH - PELLETS	Technical grade	> 98	< 1	< 200	< 20	< 100	< 20	< 20	White, strongly hygroscopic lenticular pellets that may have a bluish, yellowish or greyish tint, absorbing CO_2 and moisture in the open air
NaOH - PELLETS	Semipure	> 98	< 1	< 80	< 15	< 40	< 20	< 20	White, strongly hygroscopic lenticular pellets that may have a bluish, yellowish or greyish tint, absorbing CO_2 and moisture in the open air
NaOH - PELLETS	Pharma grade (BP, EP, USP)	> 98	< 0,5	< 200	< 10	< 200		< 20	White, strongly hygroscopic lenticular pellets, rapidly dissolving in water, absorbing CO_2 and moisture in the open air
NaOH - PELLETS	p.a.	> 98,5	< 0,4	< 70	< 8	< 40	< 3	< 10	White, strongly hygroscopic lenticular pellets, rapidly dissolving in water, absorbing CO_2 and moisture in the open air
NaOH - PELLETS	Pure	> 98	< 1	< 70	< 10	< 40	< 5	< 10	White, strongly hygroscopic lenticular pellets, rapidly dissolving in water, absorbing CO_2 and moisture in the open air
POTASSIUM HYDROXIDE									
KOH - LIQUID		45 ± 0,5	< 0,3	< 35	< 5	< 20			Clear, colourless liquid
KOH - LIQUID		50 ± 0,5	< 0,3	< 35	< 5	< 20			Clear, colourless liquid
KOH - FLAKES		> 90	< 0,65	< 70	< 30	< 40			White flakes that may have a grayish or bluish tint, absorbing moisture and CO_2 in the open air
KOH - PELLETS	Semipure	> 85	< 0,6	< 70	< 5	< 40	< 5	< 5	White, strongly hygroscopic lenticular pellets, rapidly dissolving in water, absorbing CO_2 and moisture in the open air
KOH - PELLETS	Pharma grade (BP, EP, USP)	> 85	< 2,0	< 200	< 10	< 200	< 100	< 10	White, strongly hygroscopic lenticular pellets, rapidly dissolving in water, absorbing CO_2 and moisture in the open air
KOH - PELLETS	p.a.	> 86	< 0,5	< 70	< 3	< 40	< 1	< 5	White, strongly hygroscopic lenticular pellets, rapidly dissolving in water, absorbing CO_2 and moisture in the open air
KOH - PELLETS	Pure	> 86	< 0,5	< 70	< 3	< 40	< 5	< 5	White, strongly hygroscopic lenticular pellets, rapidly dissolving inwater, absorbing CO_2 and moisture in the open air

CHLORINE PRODUCTS & OTHER

Product	Colour (APHA)	Concentration (%)	Concentration of H_2O (%)	1,5 Hexadiene (%)	Stabilizer (%)	Description
ALLYLCHLORIDE	< 50	> 99	< 0,01	< 0,3	0,015–0,025[11]	Clear liquid of characteristic pungent odour, extremely flammable, UV sensitive (darkens)

Product	Colour (APHA)	Concentration (%)	Concentration of H_2O (%)	Description
EPICHLOROHYDRIN	< 10	> 99,8	< 0,02	Colourless volatile liquid with a characteristic irritating odour

Product	Concentration (%)	Concentration of Fe (%)	Concentration of free Cl_2 (%)	Concentration of SO_4^{2-} (%)	Evaporation residue (%)	Chlorinated hydrocarbons (%)	Description
HYDROCHLORIC ACID	> 31	< 0,03	< 0,01	< 0,04	< 0,1	< 0,0025	Clear, colourless liquid with a yellowish tint and a characteristic pungent odour

Product	Colour (APHA)	Concentration (%)	Concentration H_2O (mg/kg)	Stabilizer (%)	Distillation range 95% (°C)	Density at 20 °C (kg/m³)	Description
PERCHLOROETHYLENE	< 15	> 99,9	< 34	0,0006–0,002[11]	119,5–121,5	1623	Colourless, water-clear liquid, ether-like odour

Product	Concentration of active Cl_2 (g/l)	Concentration of NaOH (g/l)	Concentration of Na_2CO_3 (g/l)	Concentration of Fe (g/l)	Description
SODIUM HYPOCHLORITE	>140 (summer – 1.5.–30.9.) >150 (winter – 1.10.–30.4.)	< 12	< 20	< 0,01	Yellow-green to yellow-brown liquid. It decomposes spontaneously at light, in case of increased temperature and in contact with specific metals

Product	Colour (APHA)	Concentration of H_2O (%)	Concentration of HF acidimetr. KOH (%)	Description
TRIETHYLAMINE TRIHYDROFLUORIDE (TEA)	0–200	> 1,0	22–27	Faintly yellow clear liquid

Product Notes: **1** Viscosity of 70% solution in butylglycol/ 25°C, **2** Viscosity of 40% solution in butylglycol/25°C, **3** In a solution, **4** Recommended mixing ratio with filler, **5** Viscosity at 25°C (Brookfield), **6** System (part A:B) has to be mixed with water in the recommended correct ratio - see Application Sheet, **7** System (part A:B) can be filled with additional filler in the recommended correct ratio - see Application Sheet, **8** Viscosity (Pa.s, 25°C), **9** Viscosity (Pa.s, 20°C), **10** 50% Xylene solution, **11** In time of loading, **12** Depends on technology used, (pbw) parts by weight.

Registered Trade Marks

EnviPOXY® EPOSTYL® CHS-ALKYD® CHS-EPODUR® CHS-EPOXY® CHS-HYDROSPOL® SADURIT® TELALIT® VEROBOND®

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