



DECORATIVE & CONSTRUCTION



OUR mission: to form a cohesive whole. As soon as our binders get to work, there is no escape in the truest sense of the word for the other substances involved in your paints, coatings or adhesives. Binders are therefore one of the most important building blocks for your end products.

Our binders not only cover a wide variety of applications areas, but they also offer great potential for more sustainable chemistry. We are already producing many binders on the basis of renewable raw materials. Indeed, we continually work to keep moving in this direction.



DECORATIVE

Take advantage of a full spectrum of solvent-borne and water-borne resins for the decorative paints that people use inside and outside their homes and offices.

OUR COATINGS TECHNOLOGIES

At VARANOX we have a wide range of resin technologies that when formulated into coatings provide an optimal performance and durability. To meet and surpass environmental regulations we continuously develop sustainable [waterborne](#) and [bio-based](#) resins that meet the coating needs of today and tomorrow.





VaraSol

ALKYD EMULSIONS

The godfather of the industry
ENVIRONMENTALLY FRIENDLY



BINDER FOR DIY AND DECORATIVE PAINTS

Solventbased binders

VaraLac RS 1174

This air drying, extremely low viscous alkyd resin is especially suitable for the use as combination- or sole binder in low VOC coatings. Due to the very good compatibility with short-, medium- and long oil alkyd resins it is suitable for the improvement of the processing - and levelling properties of paints on this basis.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
RS 1174	74	Special fatty acids	-	max. 10	max. 6	max. 750	100

VaraLac L 1030 AC

For high quality DIY and decorative paints: The acrylated, long oil alkyd resin VaraLac L 1030 AC shows a good outdoor- and yellowing resistance at unlimited oxidative drying. Due to its low viscosity it is suitable as sole or combination binder in high solid DIY and decorative paints.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
L 1030 AC	60	Special vegetable fatty acids	-	max. 5	max. 10	65 – 105 (70% in dearomat. HC 160-200)	85 in dearomat. HC 160-200

VaraLac SD 1003

Systems based on VaraLac SD 1003 show fast drying and through drying, high initial hardness and good sandability. The long oil alkyd resin is used in high quality undercoats, base coats and in silk and high gloss decorative paints. It is also suitable as combination partner in wood glazings.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
SD 1003	70	Special vegetable fatty acids	-	max. 10	max. 15	4.000–12.000	85 in dearomat. HC 160-200

VaraLac LR 5551

A low viscous, long oil alkyd resin for high quality decorative paints. Paints based on VaraLac LR 5551 show a good hardness development and outdoor durability. Because of a good compatibility with for example middle oil alkyd resins, it could be a perfect combination binder to reduce VOC.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
LR 5551	66	Vegetable fatty acids	21	max. 10	max. 15	5000 – 12.000	90 in deaeromat. HC 160-200

VaraLac R 1048

When it comes to fast drying and good hardness development: VaraLac R 1048 is a long oil alkyd resin with middle viscosity properties. It is used in decorative paints, which are compliant with the VOC legislation.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
R 1048	68	Vegetable fatty acids	21	max. 10	max. 15	2.500 – 6.500	75 in deaeromat. HC 160-200

VaraThix TL 670

VaraThix TL 670 is a thixotropic long oil alkyd resin that can be used either as a sole binder or as an additional binder. Main application fields are high solid, solvent based, air drying primers, gloss paints, silk gloss paints and glazings for decorative paints.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
TL 670	61	Special fatty acids	21	max. 15	max. 15	Thixotropic gel	70 in HC 180-220



THIXOTROPIC ALKYD • ACRYLIC • EPOXYESTER RESINS

SOLVENT-BASED & WATER-BASED

VaraLac TL 6658

Simple incorporation due to soft structure: This high solid, long oil, thixotropic alkyd resin shows very good effectiveness even at low non-volatile contents or when small quantities with usually long oil low VOC alkyd resins are added. VaraLac TL 6658 is especially used for the manufacture of anticorrosive primers, decorative and building paints as well as wood glazings.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
TL 6658	66	Special fatty acids	20	max. 15	max. 15	Thixotropic soft gel	70 in HC 180-220

VaraLac LV 5241 U

Due to urethanising this long oil alkyd resin ensures fast drying and good hardening. Solvent reduced impregnations, glazings, wood paints and wood care oils can be formulated because of the low viscosity. Systems based on VaraLac LV 5241 U show good permanently elasticity and outdoor durability.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
LV 5241 U	81	Linseed oil	-	max.10	max. 3	10.000-15.000	approx. 100

VaraLac L 1904

This very low viscosity alkyd resin is the first choice for extreme weather conditions. VaraLac L 1904 is particularly suitable for the manufacturing of high solid glazings, clear lacquers and high solid anticorrosion primers. It distinguishes through particularly excellent permanent elasticity and extremely good weather resistance.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
L 1904	79	Linseed oil	-	max. 10	max. 15	8,000–10.000	100

VaraLac R 1290

VaraLac L 1290 is an extremely low viscous alkyd resin especially suitable for the manufacturing of low VOC an VOC-free parquet-, terrace- and maintenance oils and also of wood stains and glazings. It especially shows very good penetration, permanent elasticity and weather resistance. Another field of application is the application as sole- or combination-binder in low VOC or VOC-free wood glazings and especially in maintenance oils.

Type	Oil [%]	Oil type	PA [%]	Color/ Gardner	Acid value [mgKOH/g]	Viscosity 20°C [mPa.s]	Delivery Form [%]
L 1290	90	Linseed oil	-	max. 15	max. 15	500	100



WALL AND CONSTRUCTION SOLUTIONS

We are manufacturer of modern binders
and additives for extreme demands

WATERBORNE ALKYD BINDERS

VaraSol PU 250 W

A versatile usable PU-alkyd emulsion for the production of corrosion protection systems and high gloss topcoats. VaraSol AZ 4550 U convinces with fast through drying (also with cobalt-free dryers), early water resistance and excellent weather resistance.

Topcoats with high gloss, excellent hardness and very good water resistance can be formulated. Furthermore a good outdoor resistance should be mentioned.

Paints based on VaraSol PU 250 show good gloss stability after storage.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
PU 250	44	max. 30	7.0-8.0	50 – 1.500	40 in water

VaraSol PU 253 W

You need special coatings to make stairs, furniture or parquet look as new for many years. The PU-alkyd emulsion VaraSol PU 253 is especially suitable for usage in hard wood vanishes and allows seven layers at one day. VARADIL PU 253 is mainly used for the production of water dilutable fast drying paint systems for wood and also for metal.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
PU 253 W	53	max. 38	7.0-8.5	max. 10.000	30 in water

VaraSol PU 210 W

Challenges even the most adverse weather conditions: This PU-alkyd emulsion for high gloss architectural paints convinces with excellent outdoor resistance.

VaraSol PU 210 W is used for the manufacturing of water thinnable decorative and D.I.Y. paints, which especially show a good brushability, excellent levelling and good filling properties. It is especially recommended for high gloss topcoats. The formulation of wood protection stains is also possible.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
PU 210 W	40	max. 30	5.5 – 7.5	max. 3.000	46 in water

VaraSol AZ 352

For cobalt-free decorative paints without unpleasant odours. The acrylic modified alkyd emulsions VaraSol AZ 351 and AZ 352 are almost odourless due to low aldehyde-formation and are less yellowing.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
AZ 352	26	27 - 34	6.5 – 8.5	max. 1.000	40 in water/ propylenglycol/ Dowanol PnB

VaraSol PU 458

Is a PU-alkyd emulsion, especially suitable for the production of water dilutable air-drying wall and decorative paints (also radiator paints) with very good yellowing resistance. Paints based on PU 458 have excellent gloss, low odour and low VOC.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
PU 458	39	15-25	7.0-8.0	max. 10.000	42 in water

VaraSol AF 846 W

This long oil modified, amine- and co-solvent free alkyd emulsion is ideally suitable for the manufacturing of wood care products (e.g. teak and bangkirai) and wood protecting stains.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
AF 846 W	74	-	max. 7	max. 1.500	60 in water

VaraSol AZ 331

VaraSol AZ 331; acrylic modified alkyd emulsion resin is a unique resin for the manufacture of water thinnable clear wood impregnations, pigmented and transparent stains and wood care oils. It shows extremely good penetration into the wood, excellent durability, easy application, no nailhead rusting, good chalk binding and long-term elasticity.

Type	Oil [%]	Acid value [mgKOH/g]	pH value DIN 53785	Viscosity, [mPa.s]/20°C	Delivery Form [%]
AZ 331	90	85-115	7.5 – 8.5	350 – 900	45 in water/BG 80:20

WATERBASED DISPERSIONS, ACRYLIC BINDERS

VaraMul AE 1112 W

Is a special cationic acrylic solution for wood insulating primer; it covers very well water soluble stains. AE 1112 W is ideal as filler binder or as colorless or pigmented sealing primer on woods with a high proportion of soluble wood content AE 3271 W is also particularly suitable for the production of nicotine insulating paints and transparent glazing. Excellent barrier effect. and also pigment compatibility.

Product	Monomer	Delivery Form [%]	pH value DIN 53785	MFT [°C]	Viscosity [mPa.s]/20°C
ACE 1112 W	Cationic pur acrylic emulsion	40 in water	4.0 – 6.0	15	5.000 – 8.000

VaraMuL AE 1146 W and AE 1143 W

With its good blocking and outdoor resistance these high solid acrylic emulsions are perfect for formulating high gloss emulsion paints. Self-crosslinking pure acrylic emulsion with high solid content for formulating block-resistant, high gloss emulsion paints with very good leveling properties, low VOC value in pigmented topcoats, solvent-free formulations are possible for glazings and colourless systems.

Product	Monomer	Delivery Form [%]	pH value DIN 53785	MFT [°C]	Viscosity [mPa.s]/20°C
AE 1146 W	Pure acrylic emulsion	55 in water	7.0 – 8.0	0	max. 500

Product	Monomer	Delivery Form [%]	pH value DIN 53785	MFT [°C]	Viscosity [mPa.s]/20°C
AE 1143 W	Pure acrylic emulsion	55 in water	7.0 – 8.0	13	200 - 800

VaraMul AE 1177 W

is a Core-Shell-Dispersion for the production of solvent-free decorative paints and glazings.

Product	Monomer	Delivery Form [%]	pH value DIN 53785	MFT [°C]	Viscosity [mPa.s]/20°C
ACE 1177 W	Core-Shell-Dispersion	45 in water	7.0 – 8.0	5	max. 500

VaraMul AE 1175 W

is a cationic acrylic copolymer dispersion which is used for the production of pigmented sealing primers and topcoats for wood and nicotine isolating paints with high water resistance. For the production of insulating wall paints, colorless and pigmented primer on woods with penetrating ingredients. Excellent barrier effect and very good water resistance.

Product	Monomer	Delivery Form [%]	pH value DIN 53785	MFT [°C]	Viscosity [mPa.s]/20°C
AE 1175 W	Cationic acrylic copolymer dispersion	45 in water	4.5 – 5.0	15	max. 300





VaraLac; SOLVENTBASED ALKYD RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Oil length [%]	Oil Type	Description
UR 5202	50 in water	3500 - 5500	60	Linoleic rich oils	Polyurethane modified long oil alkyd for abrasion resistance floor paints and wood finish.
UR 5314	60 in water	2200 - 3000	57	Linseed / Soya	Polyurethane modified long oil alkyd for as a sole binder in clear floor varnishes.
UR 2210	55 in water	3000 - 4500	56	Soya bean oil	Decorative enamels
AF 288	40 in water	25000 - 35000	48	Linoleic fatty acids	Thix-Alykd, used in wall paints, flat enamels and undercoats.
AN 685	100	1400 - 2400		Castor oil	Physically drying lacquers. Pigment pastes.
AH 1263	100	2000 - 3500	72	Mixed fatty acids	Decorative high solid paints and stains for interior and exterior use.
AH 1265	100	2000 - 3000	70	Mixed fatty acids	Decorative high solid paints and stains for interior and exterior use.
AL 3000	70 in water	1800 - 4800	65	Soya bean oil	Interior and exterior decorative enamels. DIY decorative paints.
AL 1600	70 in water	2600 - 4000	67	Special fatty acids	Suitable for the production of high quality decorative and building paints, which stand out for their very good properties as brushability, flow, film build and high gloss.



VaraSol; WATERBORNE ALKYD RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Oil length [%]	Oil Type	Description
AZ 4543	100	600 - 800	62	Linseed oil	Water soluble long oil alkyd for wood impregnation, temporary paints and impregnation, wetting and water soluble paints.
AZ 5400	80 in water	3400 - 4300	65	Linseed / Soya bean oil	Architectural and decorative undercoats. solvent based and waterborne wood and furniture coatings and wood stains.
AZ 4502	60 in water	50 - 1000	73	Linseed oil	Primers and transparent / opaque stains.
AZ 4504	55 in water	4000 - 10000	53	linseed/soya-bean oil / acrylic copolymer dispersion	Interior / exterior primers, transparent / opaque wood stains and exterior and interior wall coatings.
AZ 4505	100	500 - 1500	71	Drying mix oil	Water soluble long oil alkyd for wood, metal coatings.
AZ 4554	50 in water	100 - 600	40	Soya bean fatty acid	Interior / exterior primers and topcoats for wood and metals, primers and topcoats for Joinery application and corrosion resistant primers.
AZ 5600	42 in water	500 - 1000	26	Linoleic rich	Industrial metal primers, insulating wall paints, interior industrial wood stains and stoving enamels.
AZ 5601 U	44 in water	200 - 450	25	Linolic oil / fatty acids	PU modified short oil alkyd emulsion for industrial metal primers, insulating wall paints and interior industrial wood stains with speed drying and salt spray resistance properties.
AZ 4576	53 in water	100 - 1000	40	Soya bean oil	Interior / exterior primers and topcoats for metals, primers and topcoats for Joinery application and corrosion resistant primers.
AZ 5100 U	40 in water	50 - 1500	44	Special fatty acids	Co-solvent free, amine-free PU medium alkyd emulsion for the manufacture of airdrying water thinnable paint systems. DIY-varnishes, parquet varnishes and industrial coatings applications.

VaraCryl TPA; THERMOPLASTIC ACRYLIC RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value on solid [mg KOH/g]	Description
TPA 260	60 in X	10000 - 15000	≤ 15	As a decorative and quick drying paints. High-grade masonry paints.
TPA 240	60 in T	10000 - 15000	≤ 12	As decorative and quick drying paints.
TPA 220	55 in X	5000 - 7000	≤ 12	As a decorative and quick drying paints. Scratch resistance protective coats and polycarbonate glazing.

VaraRad UV; RADIATION CURING RESINS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	OH/ Solid [%]	Description
UV 4561	55 in BA	2500 - 4000	4.5	Hydroxyl group containing polyester acrylate, curing with isocyanate and radiation (dual cure), non-adhesive and scratch-resistant, for non-yellowing coatings.
UV 4500	100	40000 - 60000	-	Polyester acrylic resin for the formulation of UV and electron beam curing varnishes, lacquers, and paints. It is a nearly colourless resin with good reactivity. It forms elastic, scratch and chemical-resistant films with good adhesion properties even on plastic surface.
UV 4000	100	4000 - 6000	-	Epoxy acrylate resin, high reactivity, hard, scratch resistant films, chemical resistant.
UV 4300	100	12000 - 18000	-	Epoxy acrylate resin, high reactivity, hard, flexible, scratch resistant films, chemical-resistant, corrosion resistant.
UV 4800	100	12000 - 25000	-	Low viscous, low odour epoxy acrylate for the production of UV/Electron beam curing varnishes and lacquers with high hardness, very high reactivity, good pigment wetting, forms hard scratch resistant, durable films, chemical resistant.
UV 4405	40 in water	50 - 200	-	An aqueous anionic, UV curing, epoxy-modified polyurethane acrylic emulsion.





VARAMul

ADVANCED WATERBORNE ACRYLIC DISPERSIONS

VaraMul AE; WATERBORNE ACRYLIC DISPERSIONS

Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	pH	MFT [°C]	Description
AE 3246	55 in water	500	7,0 - 8,0	0	Self crosslinking acrylic copolymer emulsion for high solid, high gloss emulsion paints.
AE 3248	55 in water	1000	7,0 - 8,0	14	Self crosslinking aqueous pure acrylic copolymer emulsion for high solid, high gloss emulsion paints and DIY lacquers.
AE 3250	50 in water	2200	8,0 - 9,0	14	Self crosslinking pure acrylic emulsion for the production of emulsion paints interior and exterior.
AE 3255	49 in water	500	7,5 – 8,0	5	Styrene acrylic copolymer emulsion for the production of outstanding corrosion, water and humidity resistance paints.
AE 3271	45 in water	500	7,5 - 8,5	5	Self crosslinking pure acrylic emulsion for the production of emulsion paints interior and exterior.
AE 3274	45 in water	400	4,0 - 5,0	16	Aqueous cationic acrylate copolymer dispersion for the production of nicotine insulating wall paints, colourless and pigmented primers on wood with penetrating contents.
AE 3277	45 in water	500	8 - 9	40	Acrylic emulsion for the formulation of aqueous wood and furniture lacquers.
AE 3280	49 in water	300	7,0 – 8,0	17	Methacrylic copolymer emulsion for the production of wall paints, flagstone- and building adhesives.

VaraMol; LIQUID POLYESTER RESINS; PU-SYSTEMS

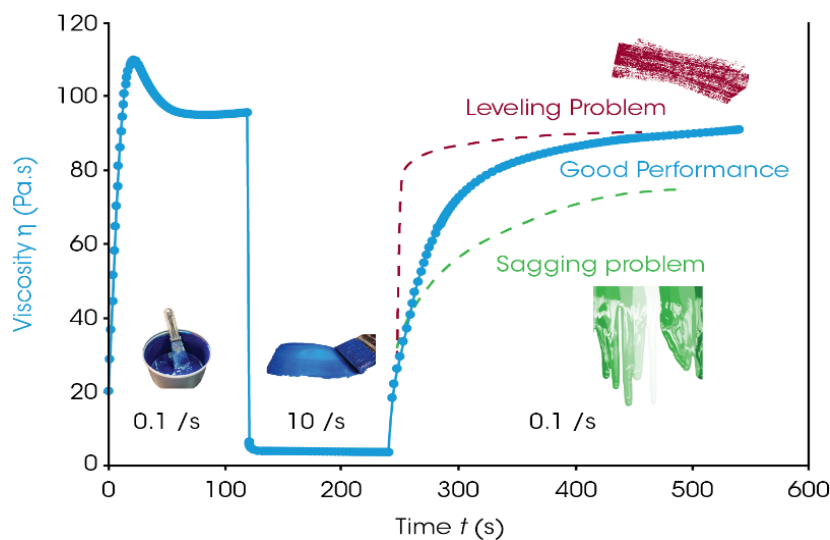
Product	Delivery Form [%]	Viscosity [mPa.s/23°C]	Acid Value [mg KOH/g]	Tg [°C]	OH/Solid [%]	Description
PE 800	solvent free	25000 - 36000	< 3	-42	6,5	As sole binder with aromatic isocyanates it is used for anti-corrosive primers with excellent adhesion and in combination with VARAPOL FS 300 for flooring coatings.
PE 805	65 in MPA	17000 - 23000	< 3	+48	8,8	Excellent weather stability, lightfastness, gloss retention, good chemicals and abrasion resistance
PE 870	solvent free	1800 - 2600	< 3	-21	4,3	Suitable for flexible topcoat/co-binders to make coatings systems more flexible.
FS 300	solvent free	2500 - 4500	< 3	-	4,7	Concrete and asphalt floors, steel surfaces in combination with isocyanates.
FS 350	solvent free	350 - 500	< 2	-	5,2	Concrete and asphalt floors, steel surfaces in combination with VARAMOL FS 300 and isocyanates.
PE 162	solvent free	15000 - 20000	< 3	35	1,3	PU-COATING for furniture, floors and parquet.



VaraThix; THIXOTROPIC RESINS FOR DECORATIVE PAINTS



Type	Oil [%]	Oil type	PA [%]	Color / Gardner	Acid value [mgKOH/g]	Flow time 20°C [s]	Supply Form [%]	Main uses and characteristics
TL 2887	64	Special fatty acids	-	max. 10	max. 15	Thixotropic gel	70 in HC 180-22	A long oil thixotropic alkyd resin for production of anti-rust primers, high quality decorative and architectural paints as well as especially for wood glaze colors.
TL 670	61	Special fatty acids	21	max. 15	max. 15	Thixotropic gel	70 in HC 180-220	Thixotropic long oil alkyd for primers, fillers, gloss and silk gloss coatings, low VOC.
TLS 6657	63	Special fatty acids	19	max. 10	max. 15	Thixotropic soft gel	60 in HC 180-220	Thixotropic long-oil alkyd, is especially suitable for the manufacture of anti-corrosive primers, decorative and building paints as well as for thick layer wood glazings.
TV 727	63	Special mixed fatty acids	23	max. 10	max. 15	Thixotropic gel	52 in HC 180-200	Thixotropic long-oil alkyd for semigloss house paints, primers, wood stains and anticorrosive paints.
TV 747	64	Special fatty acids	23	max. 7	max. 15	Thixotropic gel	52 in HC 180-220	Thixotropic long-oil alkyd for primers, mat wall and silk gloss paints and thixotropic glossy decorative and protective house paints.
TLH 5293	62	Special fatty acids		max. 10	max. 15	Thixotropic gel	85 in D60	TLH 5293 will be used in high solids paints for professional decorative application.



VaraThix

Thixotropic resins to control rheological properties, improve stability and reduce penetration



Sustainability with substance –
Responsibility for tomorrow

VARASOL BIOMER VG 709 W

VARASOL BIOMER VG 709 W is a special modified, air drying, medium-oil alkyd biomer emulsion resin for the manufacture of waterbased bio paints.

With 97% the content of renewable raw materials is higher than in conventional alkyd resins.

Technical Data:

	Value	Unit	Test Method
Non-volatile content, 1h/125 °C,	approx. 50	%	DIN EN ISO 3251
Viscosity, Rheometer, 20 °C, C 60/2°, 30 s ⁻¹	< 2.000	mPa.s	DIN EN ISO 2555
pH value	8.5 – 10.5	-	DIN ISO 976
Appearance	milky solution		
Delivery form	50 in water	%	-

Application and Properties:

With 97% renewable raw materials content, the new binder VARASOL BIOMER VGT 709 W is environmentally friendly. The solvent free, medium-oil, specially modified alkyd emulsion is used in water thinnable decorative and architectural paints as well as interior wall paints and wood stains with good harness development.





VARABIOMER
VARENA BIOPOLYMERE

 **VaraThix**


VARALAC
ALKYD RESINS


VARAMul
ADVANCED WATERBORNE ACRYLIC DISPERSIONS


VARASOL ALKYD
EMULSION INNOVATIONS


VARATAN PUD
VARENA POLYURETHANE DISPERSION