

THIXOTROPIC ALKYD • ACRYLIC • EPOXYESTER RESINS

SOLVENT-BASED & WATER-BASED

VaraThix

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

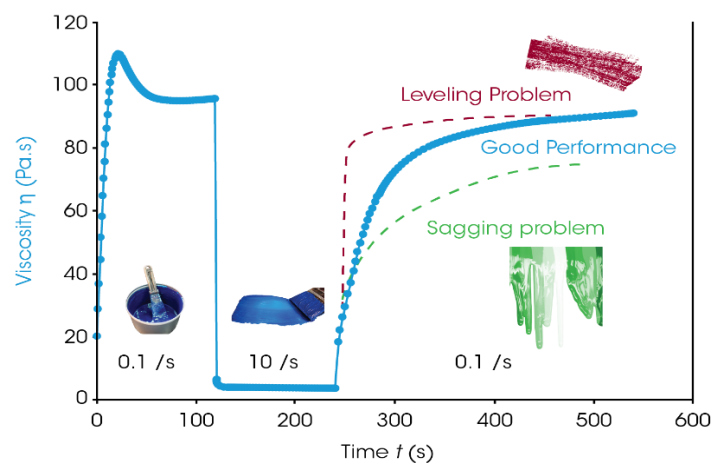


The advantages of thixotropic binders versus traditional thixotropy additives:

- Thixotropy less dependent on paint processing
- Shorter batch times in paint production (no thickener intermediate production needed)
- Thixotropy controlled within viscosity and gel-strength specifications of resin producer
- No dosage of low density solids needed in paint production process

We have two different types of thixotropic resins to offer to the paint industry:

- Poly-amide modified alkyds for decorative market
- Poly-urea based acrylics and alkyds for ACE, Industrial, Marine & Protective and Automotive paints.



THIXOTROPY

VaraThix, Applications:

Product	Stability against polar substances	Stability against temperature	Paint and construction coatings	Drip-resistant	Soft gel	Strong gel	Industrial paint for wood	Industrial paint for metal
VaraThix TV 727	--	++	●	●	●	○	○	○
VaraThix TV 747	-	-	●	●	●	○	○	○
VaraThix TL 6051	+	+	●	●	●	○	○	○
VaraThix TL 670	+	+	●	●	●	○	○	○
VaraThix TL 8050	-	-	○	●	●	○	○	○
VaraThix TV 800	++	++	●	●	●	●	●	●
VaraThix TL 6357	++	++	○	●	●	●	●	○
VaraThix TL 6358	++	++	●	●	●	○	○	○
VaraThix TLS 6455	++	++	●	●	●	●	●	●

● recommended

○ not recommended

When it comes to exterior coatings for wood, consistency is one of the most critical factors in achieving a high-quality finish that provides superior protection. VARENA CHEMICAL has developed **Thixotropic Exterior Coatings Polymers**, an advanced formulation designed to balance viscosity, adhesion, and durability.

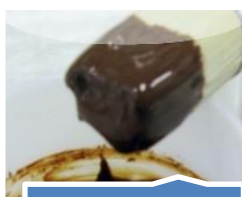


VaraThix; Thixotropic alkyd resins, acrylic resins, solventbased, waterbased

Type	Oil [%]	Oil type	PA [%]	Color / Gardner	Acid value [mgKOH/g]	Flow time 20°C [s]	Supply Form [%]	Main uses and characteristics
TA 1420	-	-	-	max. 1	max. 12	Thixotropic soft gel	50 in BuAc	Thixotropic, hydroxyfunctional pure acrylate for two component finishing lacquers. Hydroxyl content = 2.0%
TA 2117	-	-	-	max. 1	max. 15	Thixotropic soft gel	70 in BuAc	Thixotropic, hydroxyfunctional acrylic resin for 2-PU-system topcoats and primers. Hydroxyl content (on solid) = 1.6%
TA 2125	-	-	-	max. 1	-	Thixotropic gel	50 in xylene	Thixotropic styrene acrylic for thick layer coatings and textured finishes. OH=2.5%
TA 2126	-	-	-	max. 1	-	Thixotropic gel	60 in xylene	Can be crosslinked with aliphatic poly-isocyanates to formulate two component systems for metal, wood and plastics, the aliphatic system shows excellent hardness, good chemical resistance and a good outdoor durability. Hydroxyl content (on solid) = 2.3%
TA 2242 W	-	-	-	max. 1	-	Thixotropic gel	58 in W/BuAc/EE P	Thixotropic water-thinnable hydroxyl acrylate for formulating high quality two component structure paints, as combination partner in aqueous two component topcoats for improving antisagging properties. OH = 4.2%
TA 2636	-	-	-	max. 1	max. 12	Thixotropic soft gel	50 in X/X/BuAc	For high quality air and forced drying 2-components PU-systems, very good hardness, chemical resistance and weather resistance.
TA 2313	-	-	-	max. 1	-	Thixotropic soft gel	60 in MPA	Thixotropic water-thinnable hydroxyl acrylate for formulating high quality two component air- and force-drying industrial paints. Hydroxyl content (on solid) = 1.3%
TA 2335	-	-	-	max. 1	max. 16	Thixotropic soft gel	60 in X/BuAc/S1	For formulating high quality air- and forced drying top and clear coats, fast hardness and very good adhesion for different metals. Hydroxyl content (on solid) = 3.5%
TA 3013	-	-	-	max. 1	-	Thixotropic gel	50 in Kw 160-200	Thixotropic thermoplastic 1K-airdrying acrylic resin for different coatings-systems, compatible with acrylic resins.
TD 446	40	-	-	max. 10	max. 4	Thixotropic soft gel	50 in xylene	Thixotropic epoxy ester, air- and oven drying, for primers, industrial and topcoats, zinc dust coatings, thixotropy is not fully degraded by temperature and polar substances.
TL 7904	79	Linseed oil	18	max. 10	max. 15	Thixotropic strong gel	94 in xylene	High solid clear lacquers, wood glazings and high solid primers.
TL 8050	80	Linseed oil fatty acids		max. 10	max. 15	Thixotropic soft gel	100	Thixotropic long oil alkyd resin, mostly used for wood glazings, useable as sole binder as well.
TL 439	39	Special fatty acids	32	max. 10	max. 25	Thixotropic strong gel	60 in xylene	Thixotropic long oil alkyd resin, mostly used for wood glazings, useable as sole binder as well.
TS 2655	26	Special fatty acid	40	max. 6	max. 15	Thixotropic gel	60 in xylene	Thixotropic fast drying short-oil alkyd for primers, topcoats and textured finishes, thick layer- and stoving systems.
TL 6357	64	Soya oil	24	max. 6	max. 15	Thixotropic gel	40 in ws 180-210	Thixotropic long-oil alkyd resin, as combination resin for house paints, wood glazings/thick layer thixotropy is not fully degraded by temperature and polar substances.
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.
TLS 6455	64	Soya oil fatty acids	25	max. 6	max. 15	Thixotropic strong gel	50 in ws 145-195	Strong thixotropic long-oil alkyd for thick layer coatings, wood glazings and clear coatings, temperature stable and resistant against polar solvents.
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.

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TLS 6658	66	Special fatty acids	20	max. 15	max. 15	Thixotropic soft gel	70 in HC 180-220	Thixotropic longoil alkyd, is especially suitable for the manufacture of anti-corrosive primers, decorative and building paints as well as for thick layer wood glazings.
TL 6051	60	Special fatty acids	23	max. 15	max. 15	Thixotropic soft gel	55 in HC 180-220	As TV 747, but with improved resistance against polar substances.
TL 670	61	Special fatty acids	21	max. 15	max. 15	Thixotropic gel	70 in HC 180-220	Thixotropic longoil alkyd for primers, fillers, gloss and silk gloss coatings, low VOC.
TV 727	63	Special mixed fatty acids	23	max. 10	max. 15	Thixotropic gel	52 in HC 180-200	Thixotropic long-oil alkyd for semi gloss 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.
TV 800	62	Special mixed fatty acids	18	max. 10	max. 10	Thixotropic soft gel	50 in HC 180-200	Thixotropic urethane-modified long-oil alkyd for thick layer coatings, wood glazings and lacquers, temperature stable and resistant against polar solvents.
TU 2768	-	-	-	-	-	Thixotropic soft gel	60 in BuAC/MP A	Thixotropic, isocyanate-crosslinkable, polyester-modified acrylic resin, OH=5.4%.
TS 1799	60	Special mixed fatty acids	18	max. 10	max. 10	Thixotropic soft gel	60 in BuAC	A thixotropic, short oil, fast drying alkyd resin basis of vegetable fatty acids for the production of air- and oven-drying basic and topcoats. OH-content (non solids) = 1.9%
TP 6625	-	-	-	-	-	Thixotropic gel	60 in BuAC	A thixotropic, saturated, fatty acid-modified polyester predominantly for the production of 2K and stoving structural paints. Due to its broad compatibility, in industrial coatings, good pigment wetting and yellowing resistance. Hydroxyl content (on solid)=4.5%
TL 6358	64	Soya oil	24	max. 6	max. 15	Thixotropic gel	50 in HC 180-220	Pumable thixotropic long-oil alkyd combination resin for building paints, wood glazings, thick layer; thixotropy is not fully degraded by temperature and polar substances.
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.
TE 666 W	40	Special fatty acids	-	-	max. 30	Gel	40 in water	TE 666 W is an emulsion alkyd, designed for water based thixotropic drip-resistant lacquer systems and wood finishes.
TE 665 W	40	Special fatty acids	-	-	max. 30	Gel	40 in water	TE 665 W is an alkyd emulsion which enables the production of water based nondrip systems.



VARATHIX TE 665 W



VARATHIX TE 665 W

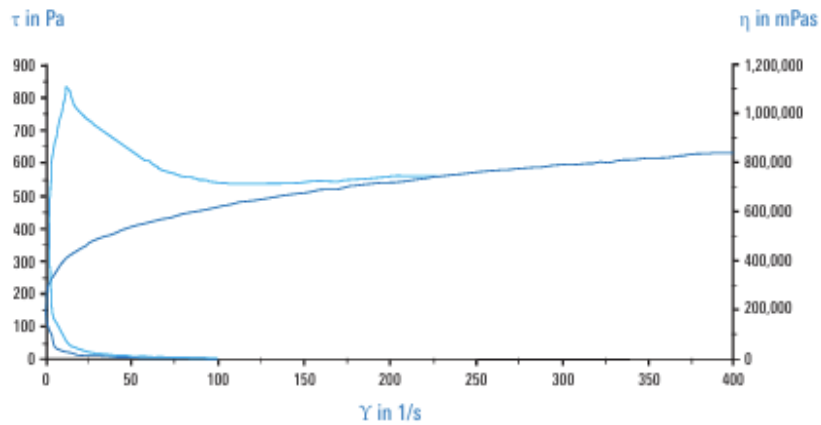


VARATHIX TE 666 W

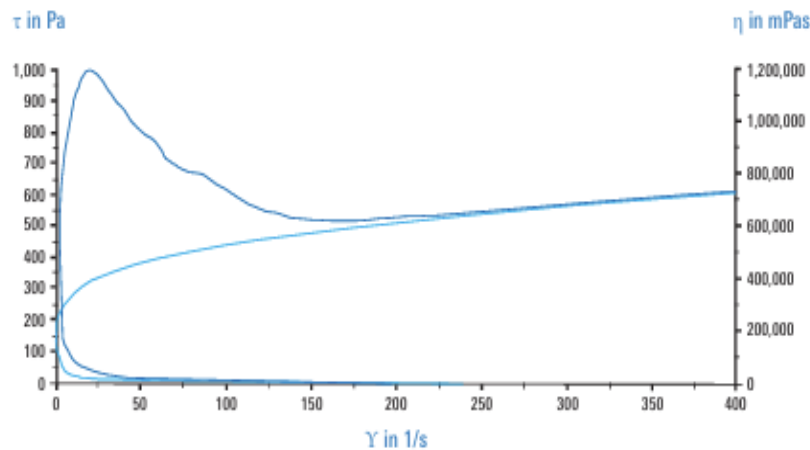


VARATHIX TE 666 W

Flow curve of the VaraThix TE 665 W initial:



Flow curve of the VaraThix TE 665 W after 3.5 months initial:



The two product types differ in their viscosity. While [VaraThix TE 665 W](#) is offered as a strong gel, [VaraThix TE 666 W](#) is available as a soft gel.

As co-binder, [VaraThix TE 665 W](#) and [VaraThix TE 666 W](#) reduce phase separation in paint storage and improve rheology in application on vertical surfaces. Both products are shear-stable and have a solid content of 40 per cent. Furthermore, polar solvents have little or no effect on the thixotropy of paint systems

VARENA CHEMICAL is a global company in the intermediates, coating, adhesives, inks and composite and solid surface resins, thermoset compounds, gel-coats and niche specialties and specialty additives for coatings and inks.

VARENA CHEMICAL is known for its superior quality and impressive range of products and with its excellent distribution network it can provide first-class service to customers whatever their market. Customer Service and Technical Service teams are renowned for their customer focus, offering the best service even after products have left manufacturing.

The group strives to keep customers satisfied, assisting them in producing premium quality products every time they use its products.



Product innovation is important for the group's business and it's the reason for which it constantly works with customers to find solutions to problems. Introducing new or improved products ensures that **VARENA CHEMICAL** continue not only to deliver what the market wants and needs, but also when it is wanted and needed.

