

Tego – Power for Solventborne High Solids Coatings



tego



Masthead

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About us

Tego – one of Evonik Industries' leading brands.

As the leading supplier of specialty chemicals worldwide, Evonik offers its customers in the coatings and printing inks industry a unique range of products under the Tego brand name. Our portfolio is the result of experience gained over more than 25 years in which we have researched and developed optimal solutions which are ideal for our customers. With over 200 products, the range currently includes not only defoamers and deaerators but also wetting and dispersing additives, leveling additives, energy-curable additives, substrate wetting additives, hydrophobing agents and even co-binders and specialty binders.

We remove air from paints, make surfaces glossy and ensure lacquers are scratch-resistant. Environmental concerns are always of key importance when developing new products.

Besides our extensive expertise in providing tailor-made solutions, our numerous contacts in more than 40 countries are an additional advantage. This underlines our philosophy of developing intelligent products for new applications not only for, but together with customers. We look forward to your challenge and are confident that we can find an advantageous solution for you.

Tego – Adding Advantages.



Pigment wetting and stabilization

Wetting and dispersing additives wet and stabilize the most diverse pigments. An effective reduction in viscosity with tailor-made additives is the prerequisite for the manufacture of low VOC formulations.

The use of TEGO® Dispers products also enables costs to be reduced. As a result of the low viscosity, pigment loading can be significantly increased and a greater amount of pigment can be dispersed in each milling cycle. Therefore, maximum color intensity is achieved through optimum pigment wetting.

Wetting and dispersing additives for pigment wetting and stabilization for high solids coatings

Product	Carbon black	Organic pigments	Inorganic pigments	Alkyd	2-pack PU	2-pack PU polyaspartics	Polyester/melamine	Acrylate, thermoplastic
TEGO® Dispers 656	-	-	+	+	+	+	+	○
TEGO® Dispers 670	++	++	++	++	++	++	++	++
TEGO® Dispers 685	++	++	++	-	++	+	+	+
TEGO® Dispers 710	+	+	○	+	+	+	+	○

++ excellent suitability
 + good suitability
 ○ limited suitability
 - not recommended

Besides the wetting and dispersing additives mentioned above, we recommend TEGO® Dispers 650 and 652 for epoxy resin formulations.





Defoaming and Deaerating

Increasing the solids content at working consistency and the limited choice of solvents significantly affect the deaerating characteristics of high solids coatings. Consequently, they are frequently prone to pinholing.

Effective deaerating combined with good compatibility can be achieved with tailor-made deaerators. Clear coats, in particular, demand the use of highly efficient and compatible deaerators.

Slip and flow additives

Inadequate flow is a frequently observed weakness of high solids coatings. There is a tendency to use low molecular weight binders to achieve a low coating viscosity. The choice of solvent, which also has a major influence on flow, is limited by regulatory constraints.

Depending on siloxane content and molecular weight, our additives promote the slip and flow/leveling characteristics of the finish and also effectively prevent cratering and foam formation.

Defoamers/Deaerators for high solids coatings

Paint system	Clear	Pigmented
Alkyd	TEGO® Airex 931 TEGO® Flow 370 ¹ TEGO® Flow ZFS 460 ¹	TEGO® Airex 940 TEGO® Airex 944 TEGO® Glide 420
2-pack PU	TEGO® Airex 950 TEGO® Airex 945 TEGO® Flow 370 ¹	TEGO® Airex 944 TEGO® Airex 986 TEGO® Foamex N
2-pack PU polyaspartics	TEGO® Airex 916 TEGO® Airex 962	TEGO® Airex 944 TEGO® Airex 962 TEGO® Glide 420
Polyester/melamine	TEGO® Airex 931 TEGO® Airex 962 TEGO® Flow 370 ¹	TEGO® Airex 986 TEGO® Airex 931 TEGO® Airex 936
2K Epoxy	TEGO® Airex 940 TEGO® Airex 910 TEGO® Airex 900	TEGO® Airex 940 TEGO® Airex 944 TEGO® Foamex N

¹ silicone-free

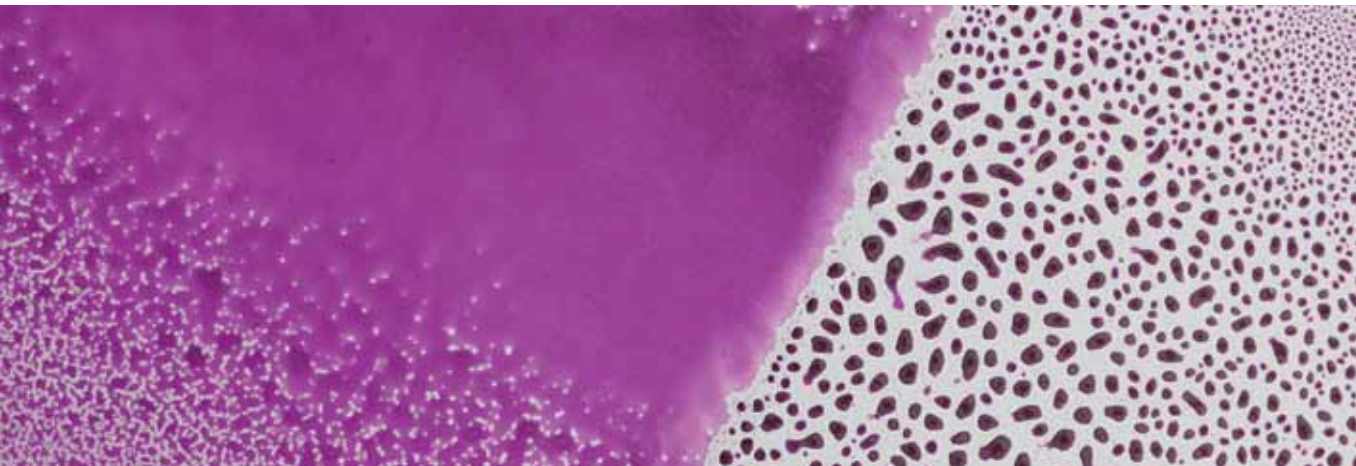
In the presence of VOC-exempt solvents, TEGO® Airex 936, TEGO® Airex 940, TEGO® Airex 962 and TEGO® Airex 916 are particularly advantageous.

Slip and flow additives for high solids coatings

Paint system	Clear	Pigmented
Alkyd	TEGO® Glide 450 TEGO® Glide B 1484 TEGO® Flow 370 ¹	TEGO® Glide 420 TEGO® Glide A 115 TEGO® Flow ZFS 460
2-pack PU	TEGO® Flow 425 TEGO® Flow 370 ¹	TEGO® Glide 420 TEGO® Flow ZFS 460
2-pack PU polyaspartics	TEGO® Wet 505 ¹	TEGO® Glide B 1484 TEGO® Glide 420 TEGO® Wet 505 ¹
Polyester/melamine	TEGO® Flow 425 TEGO® Glide 100 TEGO® Flow 300 ¹	TEGO® Glide 100 TEGO® Flow ZFS 460
2K Epoxy	TEGO® Flow 370 TEGO® Glide 450 TEGO® Glide 406	TEGO® Glide 450 TEGO® Glide B 1484 TEGO® Flow ZFS 460

¹ silicone-free

In the presence of VOC-exempt solvents, TEGO® Flow 300, TEGO® Flow 370, TEGO® Glide 100 and TEGO® Glide 110 are particularly advantageous.



Substrate wetting and anti-crater effect

Optimal substrate wetting is a prerequisite for defect-free finishes. Differences in surface tension, caused for example by contaminants, prevent the formation of a continuous film. This can result in cratering.

Depending on siloxane content and molecular weight, our additives promote block resistance and slip and prevent cratering (see also Slip and Flow Additives).

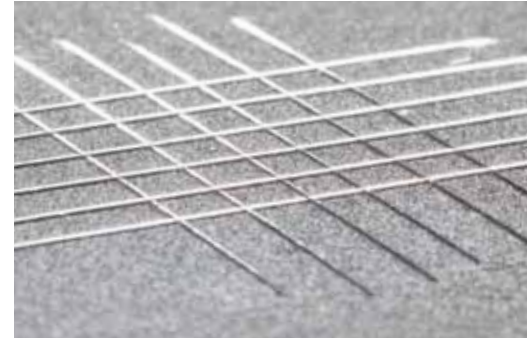
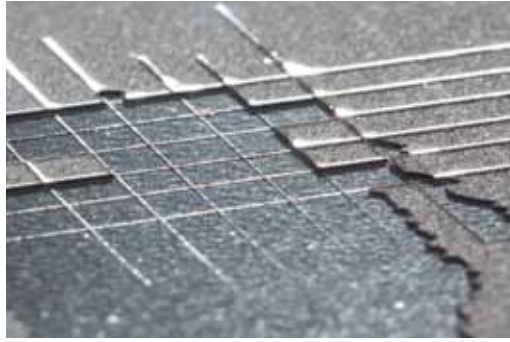
The molecular weight and, where necessary, the siloxane content of products in the TEGO® Wet range are chosen to ensure that coatings remain easily recoatable.

Anti-crater additives for high solids coatings

Paint system	Clear	Pigmented
Alkyd	TEGO® Glide 450 TEGO® Glide 100 TEGO® Flow 370 ¹	TEGO® Glide 450 TEGO® Glide 100 TEGO® Flow 370 ¹
2-pack PU	TEGO® Wet 280 TEGO® Wet 270 TEGO® Flow 425	TEGO® Wet 280 TEGO® Wet 270 TEGO® Flow 425
2-pack PU polyaspartics	TEGO® Wet KL 245 TEGO® Wet 505 ¹	TEGO® Wet 270 TEGO® Twin 4000
Polyester/melamine	TEGO® Wet 270 TEGO® Flow 425	TEGO® Wet 270 TEGO® Flow 425
2K Epoxy	TEGO® Wet 270 TEGO® Glide 450 TEGO® Glide 410	TEGO® Wet 270 TEGO® Glide 450 TEGO® Glide 410

¹ silicone-free

In the presence of VOC-exempt solvents, TEGO® Wet 270, TEGO® Glide 450 and TEGO® Glide 410 are particularly advantageous.



Co-Binders

The fundamental properties of a coating are decisively influenced by the choice of the main binder. However, it is not always possible to achieve the required properties in this manner.

Tego co-binders positively influence properties such as hardness, touch-drying speed and viscosity and, in particular, improve adhesion to diverse substrates such as plastics and metals.

Co-binders for high solids coatings

Product	Active substance	Improved Adhesion particularly on	Particular feature
TEGO® VariPlus SK	100%	Metals and plastics	Increases hardness
TEGO® AddBond LTH	100%	Metals	Increases hardness
TEGO® AddBond LTW/LTW-B	60% in xylene or butyl acetate	Metals and plastics	Increases elasticity
TEGO® AddBond HS	75% in butyl acetate	Metals and plastics	Increases elasticity

Specialty binders

The 100% liquid silicone-epoxy hybrid SILIKOPON® EF is a main binder for demanding exterior applications. The use of SILIKOPON® EF in formulations achieves effective corrosion protection, high gloss and good stability to UV light.



Specialty binders for high solids coatings

Product	Active substance	Application	Particular feature
SILIKOPON® EF	100%	heavy duty corrosion protection, good resistance to weathering and chemicals	good anti-graffiti effect

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