



Our Solution for High-Solids Coatings



Dear Reader,

An eventful year is drawing to a close, but it has been a difficult one for all of us. Together, we stood up to the challenges and worked out solutions as partners.

At the European Coatings Show in Nuremberg and at the Eurocoat in Barcelona, we presented to you and to other visitors our innovative new products. The discussions we had with you prompted us to focus on typical formulation challenges with high-solids coatings, and we'll address this topic in our current issue of Tego Talk. Take advantage of the optimal solutions provided by Evonik's Tego additives, co-binders, and specialty binders so that you can formulate your products in compliance with the Solvent Emissions Directive.

In early 2010 we'll be looking back at 25 years of company history. That's 25 years of experience, partnership, and success! Mutual trust and openness, not to mention the joy of doing new things, will strengthen us for the future. We'd like to use this occasion to thank you for the many years of cooperation and look forward to working with you on more projects!

Yours truly,

Udo Dalig

Udo Dalig
Business Manager Europe

tego

High-solids coatings provide a solution for satisfying the new VOC directives. However, the high non-volatile portion of these low-solvent coatings poses some typical challenges.

Pigment wetting and stabilization

Optimal wetting and dispersing additives and pigment paste resins are highly effective at lowering viscosity and make it possible to produce low-VOC formulations. Additives are used for binder-free pigment pastes, which have the advantage of being universally applicable at extremely high pigment concentrations. Resins are used in combination with wetting and dispersing additives. When used this way, the resins often make it possible to achieve, at low cost, a higher solids content (the low molecular weight of the resins results in a low end viscosity) and hardness; not to mention faster drying.

The following products are recommended:

- **TEGO® Dispers 670**
- **TEGO® Dispers 655**
- **TEGO® Dispers 685**
- **TEGO® Dispers 710**
- **TEGO® VariPlus TC**
- **TEGO® VariPlus EP-UC**

Ask us about our latest 100 %-liquid wetting and dispersing additives for high-solids formulations, too.

Deaeration

The defoaming properties of high-solids coatings are significantly influenced by the high solids content at the viscosity when they are processed and by a limited choice of solvents. As a result, high-solids coatings frequently tend to pinhole. Clear coatings, in particular, require highly effective and compatible defoamers.

The following products are recommended:

- **TEGO® Airex 945**
- **TEGO® Airex 950**
- **TEGO® Airex 986**
- **TEGO® Glide B 1484**
- **TEGO® Airex 940**
- **TEGO® Airex 944**
- **TEGO® Foamex N**
- **TEGO® Airex 900**
- **TEGO® Airex 931**

Optimizing film properties

Tego co-binders are highly versatile and enhance such properties as hardness and viscosity reduction and, in particular, improve adhesion on a wide variety of substrates.

The following products are recommended:

- **TEGO® VariPlus AP**
- **TEGO® VariPlus SK**
- **TEGO® AddBond LTH**
- **TEGO® AddBond LTW/LTW-B**

UV and weather resistance

The SILIKOPON® EF silicone-epoxy hybrid, by contrast, is a prime binder for special outdoor applications. In formulations, SILIKOPON® EF provides effective corrosion protection, not to mention a high degree of gloss and good stability against UV radiation.

The following product is recommended:

- **SILIKOPON® EF**

Flow promotion

One deficiency frequently observed in high-solids coatings is their poor flow. Formulators tend to use binders of low molecular weight to obtain a low coating viscosity. In addition, the type and proportion of flow-promoting solvents is severely limited.

The following products are recommended:

- **TEGO® Flow 370**
- **TEGO® Flow 425**
- **TEGO® Glide 100**
- **TEGO® Glide 450**
- **TEGO® Wet 270**
- **TEGO® Wet 280**

Substrate wetting

Differences in surface tension, attributable, for example, to impurities, prevent optimal wetting and give rise to bare spots in the coating.

Our substrate wetting additives satisfy different technical requirements, such as a very smooth and slippery, or a blunt and non-slip coating surface.

The following products are recommended:

- **TEGO® Glide 410**
- **TEGO® Flow ATF 2**
- **TEGO® Glide 450**
- **TEGO® Glide 110**
- **TEGO® Wet 270**
- **TEGO® Twin 4000**

Do your high-solids coatings have to tackle ever increasing challenges and satisfy the new VOC directives? If so, go no further, because you won't find any products better than Evonik's Tego brand additives and specialty resins.

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Tego Sales Support Fax: +49 201 173 1939

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General information & Product samples

To request further information or samples please tick the appropriate box

S D _____ Product Overview Tego Journal Please contact me

S = Sample D = Data Sheet

Further information you can find under www.tego.de