

Technical Information

TEGOMER® DA 850

TEGOMER® DA 850 is a polymeric copolymer with pigment affinic groups to be used as a dispersant in water based-surroundings.

TEGOMER® DA 850 allows to transfer water-based pigment slurries into thermoplastics when water is being evaporated during the extrusion process.

Physical properties

Active content	38.0 – 42.0 %
Refractive index	1.390 – 1.405
pH value	6.0 – 7.5
Gardner colour number	<= 5.0
Viscosity [25 °C]	100 – 500 mPas
Appearance [25 °C]	Liquid, clear, slightly yellowish coloured

Application

TEGOMER® DA 850 is a liquid dispersing additive used in the manufacture of water-based pastes of:

- inorganic fillers e.g. talc or barium sulfate, chalk
- inorganic pigments e.g. titanium dioxide, ultramarine blue, iron oxides
- organic pigments and carbon blacks

TEGOMER® DA 850 is used in pigment manufacturing processes as a TMP (Trimethylolpropane) replacement.

Benefits

- higher filling of pastes
- excellent rheological properties even during long-term storage of pastes
- prevention of hard settlement of fillers and pigments with high density, e. g. titanium dioxide or barium sulfate
- improved color strength and covering power
- less speck formation and agglomerates

- reduced abrasion properties on the doctor blade used for the application of finishes
- improved mechanical properties
- improved durability
- solvent- and nonylphenol ethoxylate-free

Dispersion type / continuous phase	0	5
Water-based dispersion		
Mineral oil vegetable oil		
Plasticizer (adipates, Phthalates)		
Polyol		
Sealants (TEGOPAC, VS Polymer)		
Epoxy resins, UP-resins		

0 = no effect; 5 = highly recommended

* TEGOMER® DA 850 is only suitable for hydrophilic polyols with certain amounts of water in the final application.

Dosage

TEGOMER® DA 850 can be applied directly to the water-based system usually before adding the filler or pigment. This enables a high efficient grinding process.

The required dosage level depends on the nature of the particles and on the composition of the polymeric formulation.

	% AOP* (100 % dispersant)	% AOP TEGOMER® DA 850
Filler	0.2 – 2.0 %	0.5 – 5.0 %
Inorganic Pigment	1.0 – 5.0 %	2.5 – 12.5 %
Organic Pigment	10 – 30 %	25 – 75 %
Carbon black	10 – 50 %	25 – 125 %
Nano particles	5 – 15 %	12.5 – 37.5 %

*AOP = additive on pigment/filler

In case of a foam build up during grinding or pumping, add TEGO® Antifoam 1488 with 0.1 % (dosage recommendation for a first trial). Alternative defoaming agents are TEGO® Antifoam 2-80 and TEGO® Antifoam D 2315.

The addition of small amounts of fumed silica (for instance 0.1 – 0.2 % Aerosil 200) might modify rheology and prevent the settlement of inorganic pigments. These low amounts do not affect the final gloss of the surface.

Food contact status

FDA

Based on the „no-migration principle“ TEGOMER® DA 850 can be used in compliance with FDA's rules for food contact if used as an additive up to a maximum use level of 90 mg/m² food contact area. The field of application includes all types of plastics, paper, coatings or adhesives. The use should be consistent with Title 21 C.F.R (Code of federal regulation), included in e.g. §175.105, §175.125, §175.300, §176.170, §176.180 or §178.3725.

Registration

The ingredients of TEGOMER® DA 850 are listed in exempt from the following chemical inventories:

EINECS, TSCA, DSL, AICS, KECL, PICCS, TCSI

Based on the submitted information of our raw material suppliers we can confirm, that TEGOMER® DA 850 is compliant with EC Regulation 1907/2006 (REACH).

Storage

TEGOMER® DA 850 can be stored for a minimum of 12 months in original sealed containers at room temperature.

Packaging

200 kg steel drums (800 kg each pallet)
1 000 kg containers

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicity and ecological effects

is given in our material safety data sheets.

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