

Technical Information

TEGOPREN® 6879

TEGOPREN® 6879 is an organo-modified siloxane to be used for surface treatment of fillers, pigments and flame retardants making them easier dispersible in thermoplastics formulations. TEGOPREN® 6879 is also used in-situ during compounding.

Physical properties

Active content	100 %
Density [25 °C]	approx. 0.95 g/ml
Viscosity [25 °C]	100 – 500 mPas
Appearance [25 °C]	liquid, pale to slightly colored

Application

TEGOPREN® 6879 improves the dispersion of:

- flame retardants, e. g. MDH or ATH
- inorganic fillers e. g. titanium dioxide, talc
- organic pigments, e. g. phthalocyanines or DPPs
- inorganic pigments e. g. ultramarine blue, iron oxides

in polyolefines and engineering resins.

Furthermore, TEGOPREN® 6879 is used as a liquid dispersing additive in the manufacture of masterbatches.

Benefits

By hydrophobizing the pigment/filler/flame retardant surface TEGOPREN® 6879 offers several advantages:

- up to 50 % less water uptake, e.g. for flame retardants such as MDH
- higher CTI values in E&E applications are achieved what is especially relevant for flame retardant compounds, e.g. MDH or MC for PA

- applicable for organic flame retardants like MP, APP and MC resulting in no whitening in the water pelletizing bath used for polyolefine, PA or PBT
- especially for TiO₂ applications with high durability and long term resistance such as in PVC window profiles higher colour strength for pigments
- higher filling grades for fillers and pigments
- excellent rheological properties result in better redilution of masterbatches
- improved mechanical properties
- better dispersibility of pigments or fillers resulting in less speck formation and/or a higher degree of filling

Handling and Dosage

Surface treatment

TEGOPREN® 6879 can be applied in the wet filter cake. Alternatively, TEGOPREN® 6879 can be added to the dry pigment either in a tumble mixer or by spraying it, e.g. in a spray drier or during milling.

In-situ use

TEGOPREN® 6879 can be used with a liquid dosage pump or in a premix of a masterbatch for the manufacture of masterbatches. Furthermore, TEGOPREN® 6879 is available in solid form.

The optimum dosage depends on the nature of the treated particle and the composition of the polymeric formulation. The optimum dosage may lay in a range between 0.2 % and 3.0 %. For surface treatment, a dosage between 0.5 % and 1.0 % is considered as standard, whereas 1.0 % to 2.0 % is considered as standard for the in-situ usage.

Food Contact Status

EU-Regulation 10/2011

TEGOPREN® 6879 can be used as Polymer Production Aids (PPA) according to Art. 6 and Art. 19 of Reg (EC) 10/2011. According to our recent risk assessment to use as a PPA is possible up to a maximum level of 70 mg/m² food contact area of the plastic article.

70 mg/m² food contact area corresponds for example with a dosage of 14 % pigment coated with 0.5 % TEGOPREN® 6879 in a 100 g/m² film (e.g. 100 µm film with a density of 1 g/cm³).

FDA

Based on the “no-migration”-principle TEGOPREN® 6879 can be used in compliance with FDA-rules for Food Contact if used as pigment dispersant (acc. to Title 21 CFR 178.3725) in all polymers up to a level of 70 mg/m² food contact area.

70 mg/m² food contact area corresponds for example with a dosage of 14 % filler coated with 0.5 % TEGOPREN® 6879 in a 100 g/m² film (e.g. 100 µm film with a density of 1 g/cm³).

Registration

The ingredients of TEGOPREN® 6879 are listed in the following chemical inventories:

EINECS, PICCS, Korea, TSCA (Not in an application that may generate a vapor, mist or aerosol), IECSC, DSL

Based on the submitted information of our raw material suppliers we can confirm, that TEGOPREN® 6879 is compliant with EC Regulation 1907/2006 (REACH).

Storage

TEGOPREN® 6879 can be stored minimum 12 months in original sealed containers at room temperature.

Packaging

950 kg net container
Other packagings available on request

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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