Technical Information

TEGOMER® P 121

TEGOMER® P 121 is a dispersing additive based on amphiphilic copolymers especially designed for the preparation of colour concentrates and technical compounds delivered in powder form.

Physical properties

Drop point (GM 1999 01)	approx. 115 °C
Melt viscosity (150 °C)	< 1 000 mPas
Appearance	free flowing powder

Application

TEGOMER® P 121 can be applied for single pigment dispersion and tailor made colour concentrates for demanding dispersing processes. Furthermore, TEGOMER® P 121 is used for the dispersion of expensive additives, so called additive or combinational masterbatches.

TEGOMER® P 121 is used for masterbatches based on:

- polyolefins (especially polypropylene)
- technical polymers (due to its high temperature resistance)

Additionally, TEGOMER® P 121 is used in filled compounds.

Benefits

TEGOMER® P 121 offers several advantages:

- increase of colour strength
- higher productivity and lower costs for coloration by reducing the amount of pigment
- higher filling grades of pigments
- less fibre fractures
- less agglomerates and aggregates
- excellent dilution behaviour
- suppression of re-agglomeration in downstream processes
- easy handling
- positive influence on masterbatch rheology
- excellent thermal and colour stability

Dosage

TEGOMER® P 121 can be applied during a pre-mix of the overall formulation or directly i.e. through split-feed processing. The required dosage level depends on nature and amount of pigment in the masterbatch formulation.

	% AOP* (100 % dispersant)
Filler	2.0 – 4.0 %
Inorganic Pigment	2.0 – 4.0 %
Organic Pigment	30 – 50 %
Carbon black	40 – 100 %

*AOP = additive on pigment/filler

Guiding formulations can be given by request.

TEGOMER® P 121 can be used in a cold or hot mixing process but in general, cold mixing is preferred since hot mixing has the risk of agglomerates formation, which are then wetted by TEGOMER® P 121only from the outside.

Food contact status

Chinese guideline GB 9685-2016

TEGOMER® P 121 may be used in compliance with the Chinese guideline GB 9685-2016 in plastics based on PE, PP, PS, AS, ABS and PC up to a level of 2.5 % and in PET up to a level of 0.5 %.

EC 10/2011

The ingredients of TEGOMER® P 121 are listed in the European Regulation 10/2011/EU.
TEGOMER® P 121 can be used up to 4.5 % in the finished article.

BfR Recommendations

TEGOMER® P 121 is a preparation, the ingredients of which comply with the Recommendation IX of the BfR (former BgVV). It can be used in all types of plastics.

Swiss Ordnance 817.023.21

TEGOMER® P 121 complies with Swiss Ordinance Annex X as List A without restrictions.

FDA

TEGOMER® P 121 may be used as a dispersing aid in polymers with up to 1 % in contact with aqueous food containing up to 8 % alcohol under conditions of use B ("Boiling water sterilized") through H (“Frozen or refrigerated storage: Ready-prepared foods intended to be reheated in container at time of use”), as described in Title 21 CFR Sec.176.170 c.) Table 1.

TEGOMER® P 121 may be used as a dispersing aid in polyolefins (complying with Title 21 CFR sec. 177.1520) with up to 0.166 % in contact with all types of food, except foods containing greater than 13 % alcohol under conditions of use B ("Boiling water sterilized") through H (“Frozen or refrigerated storage: Ready-prepared foods intended to be reheated in container at time of use”), as described in Title 21 CFR Sec.176.170 c.) Table 1.

Registration

The components of TEGOMER® P 121 are listed in the following chemical inventories:

EINECS, TSCA, NDSL, ENCS, TCCL, PICCS, IECSC, NZIOC, TCSI

Based on the submitted information of our raw material suppliers we can confirm, that TEGOMER® P 121 is compliant with EC Regulation 1907/2006 (REACh).

Storage stability

TEGOMER® P 121 is stable for a minimum of 1 year.

Packaging

20 kg cardboard box with in-liner
480 kg on pallets (24 x 20 kg)

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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