

Technical Information

TEGOMER® FR 100

TEGOMER® FR 100 is an organo-modified siloxane polyolefin compound delivered in pelletized form.

Physical properties

Appearance	White
Bulk density	225 – 325 kg/m ³

Application

TEGOMER® FR 100 can be used to produce halogen-free, flame retardant polyolefin based on EVA and elastomeric compounds.

TEGOMER® FR 100 serves as process aid for highly loaded compounds containing carbon black or mineral fillers, like aluminium or magnesium hydroxide.

TEGOMER® FR 100 improves machine parameters such as extrusion head pressure and torsional moment significantly for

- a) untreated fillers and
- b) even for silane treated grades

TEGOMER® FR 100 does not only work as an external lubricant as silicone oil but also in the bulk phase resulting in optimized viscosity measured with Mooney viscosimeter.

By thermally initiated crosslinking reactions TEGOMER® FR 100 can be introduced permanently into polymeric resins.

The use of TEGOMER® FR 100 allows the processing of high-filled HFFR compounds (up to 70 %), even with untreated ATH or MDH.

Dosage/Handling

The amount of TEGOMER® FR 100 used depends on the required properties. The concentration can range from 1.0 – 4.0 wt% depending on the polymer and the amount of mineral fillers. TEGOMER® FR 100 will be used in HFFR compounds with 2 to 4 % addition levels if used alone, a dosage of 2 % when used with 2 – 3 % compatibilizer (like PP-MAA) and 1 – 2 % in combination with 0.5 % silane.

TEGOMER® FR 100 can be used with up to 5 % without any influence on the afterwards applied coating, printing or adhesive on the final part or extruded cable.

Benefits

TEGOMER® FR 100 provides several benefits to the polymer formulation such as:

- better dispersion of fillers resulting in very good flame resistant classification
- is working as internal lubricant
- higher output by optimized melt rheology
- less pressure built-up and amperage draw during extrusion
- prevents die drol
- reduced wear out at the machinery by improved melt flow
- reduced abrasion in the extruder
- less maintenance costs
- excellent char formation
- low smoking cable formulation can be achieved
- low heat and smoke release
- significantly improved Lower Oxygen Index (LOI)

Registration status

The ingredients of TEGOMER® FR 100 are listed in the following inventories:

EINECS, TSCA, DSL, KECL, ENCS, AICS, PICCS, IECSC, NZIOC, TCSI

Based on the submitted information of our raw material suppliers we can confirm, that TEGOMER® FR 100 is compliant with EC Regulation 1907/2006 (REACH).

Storage stability

TEGOMER® FR 100 is stable in closed containers for a minimum of 12 months.

Packaging

10 kg cardboards (180 kg each pallet)

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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