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Technical data
KEBABLEND / MW FE 181101 TPE (Development product*)

KEBABLEND / MW FE 181101 TPE is a development product based on TPE for the production of soft magnetic components. The material has a hardness of Shore A 80.

Polymer: TPE-S

ISO designation: TPS-SEBS-MED

Productgroup: Magnetic compounds, Functionalized compounds

Brief description of the product family:
KEBABLEND is a wide range of functional compounds, often tailor-made to customer requirements. Under the trade name KEBABLEND, we market magnetizable, thermally or electrically conductive compounds, high-density injection molding materials, compounds for radiation protection applications, detectable plastics and much more.

Properties:

dimensionally stable, flexible, semi-crystalline, soft magnetic

Typical areas of application:

Industries:

Automotive, Electrical and electronics industry, Household appliances, Mechanical Engineering

Physical properties

Density in kg/m³ | ISO 1183-1	1530.00

Mechanical properties

Breaking stress in MPa | ISO 527-1	7.0
Elongation at break in % | ISO 527-1	600.0
Shore A hardness | DIN ISO 7619-1	80
Stress at 10% elongation in MPa | DIN EN ISO 527-1	1.70
Stress at 50% elongation in MPa | DIN EN ISO 527-1	2.50
Stress at 100% elongation in MPa | DIN EN ISO 527-1	2.80
Stress at 300% elongation in MPa | DIN EN ISO 527-1	3.70

Rheological properties

Shrinkage in flow direction in % | ISO 294-4	1.30
Shrinkage transverse to the flow direction in % | ISO 294-4	0.90

Thermal properties

Fire behavior (0.4 mm wall thickness) | IEC 60695-11-10	HB

Thermal properties	
Fire behavior (0.8 mm wall thickness) | IEC 60695-11-10	HB
Fire behavior (1.6 mm wall thickness) | IEC 60695-11-10	HB
Fire behavior (3.2 mm wall thickness) | IEC 60695-11-10	HB

Processing instructions:

Pre-drying:

Dryer type: dry air dryer.
Temperature: 60 – 70°C
Drying time: 2 – 4 h
Target moisture content: <0,1%

Recommended basic settings:

Melt temperature: 230 – 260
Mold temperature: 20 – 50
Injection speed: medium – high

Machine selection:

Screw: special injection units for magnetic compounds; low compression screws with non-return valve
Nozzle: Open nozzle
Wear protection: Wear and corrosion protected according to machine manufacturer’s recommendation suitable for processing magnetic compounds
Injection unit: Shot volume = 50-80% of maximum metering volume

Further important processing information:

The residence time of the melt in the screw antechamber should be kept as short as possible. If this is not observed, segregation can occur due to the large difference in density between the filler and the carrier material if the downtimes are too high. The ideal here is metering time = cooling time. A medium back pressure leads to optimum homogenization. Due to the high filler content, the spraying equipment must be equipped with wear and corrosion protection.

Legal notices:

The information in this data sheet is based on our current knowledge and experience. Due to the wide range of possible influences during processing and application of our products, they do not exempt the processor from carrying out his own tests and trials. A legally binding assurance of certain properties or suitability for a specific application cannot be derived from our information.

* FE products are development products which are still in the trial phase. Technical data may still change in the course of product and process development. No final decision has yet been made on the commercialization of FE products. We reserve the right to discontinue the manufacture of FE products without giving further reasons.

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