

## Technical data

### KEBABLEND / MW 53.2000 PPS

KEBABLEND / MW 53.2000 PPS is a PPS-based product for the manufacture of soft magnetic components. The achievable permeability is about 15 (at 1MHz) and the saturation flux density is 1200 mT.

**Polymer:** PPS

**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, high continuous used temperature, semi-crystalline, soft magnetic

#### **Typical areas of application:**

Pumps and motors, Rotors

#### **Industries:**

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

## Mechanical properties

Breaking stress in MPa   ISO 527-1	35.0
Elongation at break in %   ISO 527-1	0.1
Impact strength (Charpy) at 23°C in kJ/m <sup>2</sup>   ISO 179-1eU	2.8
Notched impact strength (Charpy) at 23°C in kJ/m <sup>2</sup>   ISO 179-1eA	2.5

## Physical properties

Density in kg/m <sup>3</sup>   ISO 1183	5300.00
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## Thermal properties

Melting temperature (DSC, 10°C/min) in °C   ISO 11357-1/-3	283.5
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## **Processing instructions:**

### **Pre-drying:**

Dryer type: dry air dryer.

Temperature: 120 - 130°C

Drying time: 2 - 3 h

Target moisture content: <0.02%.

### **Recommended basic settings:**

Melt temperature: 300 - 330°C

Mold temperature: 140 - 160°C

Injection speed: medium - high

Holding pressure: high

Back pressure: 40 - 80bar (spec.)

### **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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