

## Technical data

# KEBABLEND / M 10/23 PPS

PPS, functional compound for the production of plastic bonded magnets

**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, magnetizable, semi-crystalline

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

Holding magnets, Magnets for sensors, Pumps and motors, Rotors

### **Industries:**

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

## Magnetic properties

|  |      |
|--|------|
| Remanence (Br) in mT   DIN EN 60404-5                              | 235  |
| Coercivity (jHc) in kA/m   DIN EN 60404-5                          | 235  |
| max. energy product (BH max) in kJ/m <sup>3</sup>   DIN EN 60404-5 | 10.5 |

## Mechanical properties

|                                      |       |
|--------------------------------------|-------|
| E-modulus in MPa   ISO 527-1         | 18500 |
| Breaking stress in MPa   ISO 527-1   | 65.0  |
| Elongation at break in %   ISO 527-1 | 0.4   |

## Physical properties

|   |         |
|---|---------|
| Density in kg/m <sup>3</sup>   ISO 1183 | 3410.00 |
|---|---------|

## Rheological properties

|  |      |
|--|------|
| Shrinkage in flow direction   ISO 294-4                | 0.70 |
| Shrinkage transverse to the flow direction   ISO 294-4 | 0.70 |

## Thermal properties

|  |       |
|--|-------|
| Melting temperature (DSC, 10°C/min) in °C   ISO 11357-1/-3 | 278.0 |
|--|-------|

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## **Processing instructions:**

### **Pre-drying:**

Dryer type: dry air dryer

Temperature: 120°C

Drying time: 4-8 h

### **Recommended basic settings:**

Melt temperature: 300 - 330°C

Mold temperature: 140 - 160°C

Injection speed: medium - 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 for magnetic compounds

Injection unit: Shot volume = 50-80% of the maximum metering volume

### **Other important processing notes:**

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 substrate 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.

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