

Technical data

KEBABLEND / EC FE211005/1 PBT

KEBABLEND / EC FE211005/1 PBT is an electrically conductive compound based on PBT with a 20% CF recycle content.

A large application potential for this compound lies in the substitution of metal housings (metal replacement/lightweight construction) with regard to EMC-compatible component design. As a housing material, KEBABLEND / EC FE211005/1 PBT offers the advantage of electromagnetic shielding without additional surface treatments.

Polymer: PBT

ISO designation: PBT-CF20-HI

Productgroup: Electrically conductive 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, electrically conductive, good chemical resistance, good aging behavior, high continuous used temperature, High strength, High stiffness, semi-crystalline

Typical areas of application:

Housing, Sliding elements, Bearing bushes, Structural components

Industries:

Automotive, Railroad industry, Electrical and electronics industry, Industry, Agriculture, Mechanical Engineering, Furniture industry, Sports & Recreation

Physical properties

| | |
|---|---------|
| Density in kg/m ³ ISO 1183-1 | 1290.00 |
|---|---------|

Mechanical properties

| | |
|---|-------|
| E-modulus in MPa ISO 527-1 | 14000 |
| Breaking stress in MPa ISO 527-1 | 130.0 |
| Elongation at break in % ISO 527-1 | 4.0 |
| Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU | 80.0 |
| Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA | 17.5 |

Rheological properties

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|---|-----|
| Shrinkage in flow direction in % ISO 294-4 | 0.2 |
| Shrinkage transverse to the flow direction in % ISO 294-4 | 0.4 |

Thermal properties

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|--|-------|
| Melting temperature (DSC, 10°C/min) in °C ISO 11357-1/-3 | 227.0 |
|--|-------|

Processing instructions:**Pre-drying:**

Dryer type: dry air dryer

Temperature: 80°C

Drying time: 4 – 8 h

Target moisture content: <0,02%

Recommended basic settings:

Melt temperature: 250 – 260°C

Mold temperature: 90 – 120°C

Injection speed: high

Back pressure (spec.): 40 – 80 bar

Machine selection:

Screw: 3-zone screw with non-return valve.

Nozzle: Open nozzle or shut-off nozzle

Wear protection: Wear protected according to machine manufacturer's recommendation, suitable for processing fiber-reinforced plastics

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

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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