

Technical data

KEBABLEND / H 27.1200 PBT

KEBABLEND / H 27.1200 PBT is a functional compound based on PBT with high density.

Polymer: PBT

ISO designation: PBT-MED

Productgroup: Compounds with high density, 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, good chemical resistance, High density, semi-crystalline

Typical areas of application:

Actuating elements, industrial goods, Vibration damper

Industries:

Automotive, Railroad industry, Household appliances, Industry, Mechanical Engineering, Sports & Recreation

Mechanical properties

E-modulus in MPa ISO 527-1	4900
Breaking stress in MPa ISO 527-1	35.0
Elongation at break in % ISO 527-1	2.5
Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU	45.0
Impact strength (Charpy) at -30°C in kJ/m ² ISO 179-1eU	30.0
Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA	5.0
Notched impact strength (Charpy) at -30°C in kJ/m ² ISO 179-1eA	2.8
Shore D hardness DIN ISO 7619-1	80

Physical properties

Density in kg/m ³ ISO 1183-1	2700.00
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Rheological properties

Shrinkage in flow direction in % ISO 294-4	1.60
Shrinkage transverse to the flow direction in % ISO 294-4	1.70

Thermal properties

Melting temperature (DSC, 10°C/min) in °C ISO 11357-1/-3	225.0
Continuous operating temperature in °C ISO 2578	120.0

Processing instructions:

Pre-drying:

Dryer type: dry air dryer

Temperature: 80°C

Drying time: 4-8 h

Moisture content during processing: < 0.02%.

Recommended basic settings:

Melt temperature: 250 – 260°C

Mold temperature: 90 – 120 °C

Injection speed: high

Back pressure: 40 – 80bar (spec.)

Machine selection:

Screw: Low compression screw with non-return valve

Nozzle: Open nozzle

Wear protection: Wear and corrosion protected according to machine manufacturer's recommendation, suitable for processing highly filled plastics

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

Other important processing notes:

The residence time of the melt in the barrel 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 polymer if the dwell time is too high. The optimum is: metering time = cooling time. A medium back pressure leads to optimum homogenization. Due to the high filler content, the injection molding equipment, including mold cavities, must be equipped with suitable protection against abrasive wear. When designing parts and molds for processing KEBABLEND / H 27.1200 PBT, high shear rates must be avoided to prevent excessive wear. This includes suitable dimensions of cold/hot runner systems and gating. Areas of the mold in which high shear rates cannot be avoided should be designed as exchangeable mold inserts. We recommend to consider shortened maintenance intervals and increased wear in your calculations.

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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