BARLOG Plastics
Mehr aus Polymer.

Technical data
KEBABLEND / RS 49.1800 PA 12

KEBABLEND / RS are special compounds based on different polymers for applications through which radiation is to be shielded. KEBABLEND / RS 49.1800 PA 12 was developed for applications that are to shield soft and hard X-ray radiation. The physical properties of the filler systems used make them particularly suitable for absorbing or attenuating radiation up to 600 keV. Processing by injection molding allows a particular degree of design freedom. Despite the high filler content, KEBABLEND / RS 49.1800 PA 12 has excellent mechanical properties.

Polymer: PA 12

ISO designation: PA12-MED

Productgroup: Shielding 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, semi-crystalline, PFAS-free

Typical areas of application:

Radiation protection/ lead replacement in X-ray equipment

Industries:

Electrical and electronics industry, Industry, Mechanical Engineering, Medical Technology

Physical properties

Density in kg/m³ | ISO 1183-1	4900

Mechanical properties

Tensile modulus in MPa | ISO 527-1	3600
Stress at break in MPa | ISO 527-1	20
Strain at break in % | ISO 527-1	1
Impact strength (Charpy) at 23°C in kJ/m² | ISO 179-1eU	5.5
Notched impact strength (Charpy) at 23°C in kJ/m² | ISO 179-1eA	2.6

Rheological properties

Molding shrinkage in flow direction in % | ISO 294-4	0.95
Molding shrinkage transverse to the flow direction in % | ISO 294-4	0.9

Thermal properties

Burning behavior at thickness 0.4 mm | IEC 60695-11-10	HB

Processing instructions:

Pre-drying:

Dryer type: dry air dryer
Temperature: 80°C
Drying time: 3-4 h
Residual moisture content: < 0,1%

Recommended basic settings:

Melt temperature: 260 – 280°C
Mold temperature: 40-80°C
Injection speed: medium – high

Machine selection:

Screw: Wear-protected 3-zone screw with non-return valve
Nozzle: Open nozzle
Injection unit: The selected barrel capacity should not exceed 2 – 3 shots to avoid thermal material damage.

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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