

## Technical data

### KEBABLEND / TC FE 190205/1 PA6 (Development product\*)

KEBABLEND / TC FE 190205 PA6 is a special compound based on PA6, which is thermally conductive and electrically insulating.

**Polymer:** PA 6

**ISO designation:** PA6-MD

**Productgroup:** THERMALLY 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:**

thermally conductive

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

Pumps and motors, Pump housing, Structural components, Connecting elements

#### **Industries:**

Automotive, Household appliances, Industry, Mechanical Engineering, Furniture industry

Physical properties	
Density in kg/m <sup>3</sup>   ISO 1183-1	2300.00

Mechanical properties	
E-modulus in MPa   ISO 527-1	15000
Breaking stress in MPa   ISO 527-1	90.0
Elongation at break in %   ISO 527-1	1.0
Impact strength (Charpy) at 23°C in kJ/m <sup>2</sup>   ISO 179-1eU	30.0

Rheological properties	
Shrinkage in flow direction in %   ISO 294-4	0.50
Shrinkage transverse to the flow direction in %   ISO 294-4	0.50

Thermal properties	
Melting temperature (DSC, 10°C/min) in °C   ISO 11357-1/-3	220.0
Continuous operating temperature in °C   ISO 2578	90.0
Fire behavior (0.4 mm wall thickness)   IEC 60695-11-10	HB

## Thermal properties

Coefficient of thermal expansion in flow direction in E-6/K   ISO 11359-1/-2	35.0
Coefficient of thermal expansion transverse to the flow direction in E-6/K   ISO 11359-1/-2	45.0
Thermal conductivity in plane in W/mK   DIN EN 821	2.0
Thermal conductivity through plane in W/mK   DIN EN 821	1.5
Fire behavior (0.8 mm wall thickness)   IEC 60695-11-10	HB
Fire behavior (1.6 mm wall thickness)   IEC 60695-11-10	HB
Fire behavior (3.2 mm wall thickness)   IEC 60695-11-10	HB

**Processing instructions:****Pre-drying:**

Dryer type: dry air dryer

Temperature: 80°C

Drying time: 4 – 8 h

Target moisture content: <0,1%

**Recommended basic settings:**

Melt temperature: 275 – 300

Mold temperature: 80 – 120

Injection speed: medium – high

Back pressure (spec.): 30 – 70 bar

Note higher thermal conductivity of the material when setting the barrel and mold temperature!

**Machine selection:**

Wear protection: Wear and corrosion protected as recommended by the machine manufacturer Suitable for processing highly filled 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 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.

\* 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.

Am Weidenbach 8-10  
51491 Overath

Telefon +49 (0)2206 90851-100  
Telefax +49 (0)2206 90851-199

E-Mail: [kontakt@barlog.de](mailto:kontakt@barlog.de)  
Web: [www.barlog.de](http://www.barlog.de)