

Technical data

KEBAFLEX / S FE 180401 natural (development product*)

KEBAFLEX / S FE 180401 natural is a development product for the manufacture of flexible, flame-retardant components. KEBAFLEX / S FE 180401 natural has a Shore hardness of 80 A and, from a wall thickness of 1.6 mm, achieves the classification V0 based on the test standard UL 94. The material is suitable, among other things, for the manufacture of seals in electrical and electronic applications.

Polymer: TPE-S

ISO designation: TPS-SEBS

Productgroup: TPE

Brief description of the product family:

Under the trade name KEBAFLEX / S we market a range of thermoplastic elastomer compounds based on SEBS/PP. KEBAFLEX / S is available in various Shore hardnesses from below A10 to above D50 and is often used as a substitute for rubber due to its cost-effective processing by injection molding. It is soft and flexible, freely colorable, shows good elastic behavior up to 100°C and offers a pleasant feel. A wide range of modified compounds is available, e.g. adhesion-modified grades for 2K injection molding, printable grades, grades with optimized compression set, etc.

Properties:

flexible, good haptics, good fire behavior, good recovery behavior, semi-crystalline, weich

Typical areas of application:

Industries:

Physical properties

Density in kg/m³ | ISO 1183-1

1110.00

Mechanical properties

Breaking stress in MPa | ISO 527-1

3.8

Elongation at break in % | ISO 527-1

200.0

Compression set at 23°C in %. | ISO 815-1

25

Compression set at 70°C in %. | ISO 815-1

36

Shore A hardness | DIN ISO 7619-1

80

Compression set at 100°C in % | ISO 815-1

53

Stress at 10% elongation in MPa | DIN EN ISO 527-1

1.50

Stress at 50% elongation in MPa | DIN EN ISO 527-1

2.50

Stress at 100% elongation in MPa | DIN EN ISO 527-1

3.00

Tear resistance in kN/m | DIN ISO 34-1

12.00

Rheological properties

Shrinkage in flow direction in % | ISO 294-4

2.00

Rheological properties

Shrinkage transverse to the flow direction in % ISO 294-4	0.80
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Thermal properties

Fire behavior (0.4 mm wall thickness) IEC 60695-11-10	HB
Fire behavior (0.8 mm wall thickness) IEC 60695-11-10	HB
Fire behavior (1.6 mm wall thickness) IEC 60695-11-10	V0
Fire behavior (3.2 mm wall thickness) IEC 60695-11-10	V0

Processing instructions:**Pre-drying:**

Dryer type: dry air dryer

Temperature: 80°C

Drying time: 2 – 4 h

Due to the low water absorption, pre-drying is usually not necessary. Pre-drying in a dry air dryer may be useful to improve the surface quality.

Temperatures:

Melt temperature: 190 – 220°C

Mold temperature: 20 – 40°C

Dwell time on the machine:

Aim for short dwell time, empty cylinder when production is interrupted, lower temperature, flush with fresh material when restarting.

General processing information:

The relatively high viscosity requires high injection speeds and medium injection pressure. To avoid high internal stresses, and to improve 2K adhesion, keep holding pressure as low as possible and select holding times of injection pressure and holding pressure as short as possible.

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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Am Weidenbach 8-10
51491 Overath

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

E-Mail: kontakt@barlog.de
Web: www.barlog.de