

## Technical data

### KEBAFLEX - H / S FE 180101 (development product\*)

TPE-S, Shore A41, natural, modified for good adhesion to ABS, PC and ABS/PC-, food conform according to EU 10/2011 and FDA

**Polymer:** TPE-S

**ISO designation:** TPS-SEBS-FC

**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, semi-crystalline, weich, approved for food contact (EU and FDA)

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

#### **Industries:**

## Physical properties

Density in kg/m <sup>3</sup>   ISO 1183-1	1010.00
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## Mechanical properties

Breaking stress in MPa   ISO 527-1	3.5
Elongation at break in %   ISO 527-1	650.0
Shore A hardness   DIN ISO 7619-1	41
Stress at 10% elongation in MPa   DIN EN ISO 527-1	0.40
Stress at 50% elongation in MPa   DIN EN ISO 527-1	0.80
Stress at 100% elongation in MPa   DIN EN ISO 527-1	1.30
Stress at 300% elongation in MPa   DIN EN ISO 527-1	2.10

## Rheological properties

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

## Thermal properties

Fire behavior (0.4 mm wall thickness)   IEC 60695-11-10	HB
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Thermal properties	
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: 3 – 4 h  
Residual moisture: < 0.02

**Processing Injection molding:**

Temperatures:  
Melt temperature: 230 – 250°C  
Mold temperature: 20 – 50 °C

**General processing notes:**

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

Very good venting of the cavity is a basic requirement for achieving a high injection speed and, consequently, good adhesion and a good surface quality.

**Temperatures:**

Feed zone: 140 – 160°C  
Compression zone: 150 – 180°C  
Discharge zone: 160 – 200°C  
Mold: 180 – 220°C

Maximum temperature: 250°C  
Higher temperatures can cause damage to the material.

**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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