

## Technical data

### KEBAFLEX - H / SPBT 60 A.01 natural

TPE-S, Shore A70, modified for adhesion to PBT and polyester elastomer, also for extrusion 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, adhesion modified, semi-crystalline, weich

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

Sealing elements, Seals, Handles, Haptic components, Cables and connectors for media-carrying systems

#### **Industries:**

Automotive, Electrical and electronics industry, Household appliances, Industry, Mechanical Engineering, Furniture industry, Sports & Recreation

## Mechanical properties

Breaking stress in MPa   ISO 527-1	5.4
Elongation at break in %   ISO 527-1	540.0
Compression set at 23°C in %.   ISO 815-1	24
Shore A hardness   DIN ISO 7619-1	70
Stress at 10% elongation in MPa   DIN EN ISO 527-1	0.90
Stress at 50% elongation in MPa   DIN EN ISO 527-1	2.10
Stress at 100% elongation in MPa   DIN EN ISO 527-1	2.80
Stress at 300% elongation in MPa   DIN EN ISO 527-1	3.90

## Rheological properties

Shrinkage in flow direction in %   ISO 294-4	1.80
Shrinkage transverse to the flow direction in %   ISO 294-4	1.20

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

Dryer type: dry air dryer

Temperature: 80°C

Drying time: 3-4 h

Residual moisture: < 0.02

**Temperature recommendations Injection molding:**

Melt temperature: 200 – 250°C

Mold temperature: 20 – 50 °C

**Temperature recommendations Extrusion:**

Feed zone: 140 – 160°C

Compression zone: 150 – 170°C

Discharge zone: 160 – 180°C

Mold: 180 – 220°C

**General processing instructions:**

Injection molding:

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.

A compound temperature at the upper limit also improves adhesion.

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

The selected barrel capacity should not exceed 5 – 6 shots to avoid thermal material damage.

**Extrusion:**

The melt should be sheared sufficiently, for this purpose the use of melt screens can be useful. This improves homogeneity and positively influences the surface quality of the extrudate.

**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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