BARLOG Plastics
Mehr aus Polymer.

Technical data
KEBAFLEX / P D 55.3 HR

KEBAFLEX / P D 55.3 HR is a polyester elastomer with a Shore hardness of 55 D. The material is free of plasticizers and is characterized by its very good flexibility and impact strength, even at low temperatures. Compared to the standard grade KEBAFLEX / P D 55.1, KEBAFLEX / P D 55.3 HR exhibits improved recovery behavior and a higher melting temperature.

Polymer: TPC-ET

ISO designation: TPC-ET

Productgroup: TPE

Brief description of the product family:
KEBAFLEX / P stands for a range of thermoplastic polyester elastomers. This group of materials is characterized by very good flexibility and recovery behavior, constant properties over a wide temperature range, good sliding and wear behavior, and durability under dynamic loads.

Properties:

flexible, good gliding properties, good recovery behavior, High wear resistance, semi-crystalline, PFAS-free

Typical areas of application:

Axle collars, Airbag covers, Sealing elements, Spring elements, Sliding elements, Hoses, Vibration damper, Sports & Leisure Articles, shockproof housing, Gears, Timing belt

Industries:

Automotive, Railroad industry, Electrical and electronics industry, Household appliances, Industry, Agriculture, Food processing industry, Mechanical Engineering, Medical Technology, Furniture industry, Sports & Recreation

Physical properties

Density in kg/m³ | ISO 1183-1	1180

Mechanical properties

Stress at yield in MPa | ISO 527-1	13
Strain at yield in % | ISO 527-1	40
Strain at break in % | ISO 527-1	500
Impact strength (Charpy) at 23°C in kJ/m² | ISO 179-1eU	N.B.
Notched impact strength (Charpy) at 23°C in kJ/m² | ISO 179-1eA	N.B.
Shore D hardness | DIN ISO 7619-1	50
Stress at 10% elongation in MPa | DIN EN ISO 527-1	10.0
Stress at 50% elongation in MPa | DIN EN ISO 527-1	13.0
Stress at 100% elongation in MPa | DIN EN ISO 527-1	13.0
Stress at 300% elongation in MPa | DIN EN ISO 527-1	17.0

Rheological properties

Melt flow rate MFR (test condition) |	230°C / 2,16kg

Rheological properties

Melt flow rate MFR in g/10min | ISO 1133	15
Molding shrinkage in flow direction in % | ISO 294-4	1.2
Molding shrinkage transverse to the flow direction in % | ISO 294-4	1.2

Thermal properties

Melting temperature (DSC, 10°C/min) in °C | ISO 11357-1/-3	200
Coeff. of linear therm. expansion in flow direction in E-6/K | ISO 11359-1/-2	180
Coeff. of linear therm. expansion transverse to the flow direction in E-6/K | ISO 11359-1/-2	180
Burning behavior at thickness 0.8 mm | IEC 60695-11-10	HB

Processing instructions:

Pre-drying recommendation:

Dryer type: dry air dryer
Temperature: 80°C
Drying time: 4 – 8 h
Residual moisture: < 0.02

Temperature recommendation:

Melt temperature: 230 – 245°C
Mold temperature: 40 – 60°C

General processing instructions:

KEBAFLEX / P can be processed on standard injection molding machines. The selected cylinder capacity should not exceed 2 – 3 shots to avoid thermal material damage.

Due to its special properties, KEBAFLEX / P may tend to stick to smooth and polished mold surfaces. Structured surfaces favor the demolding behavior. Alternatively, the mold can be provided with suitable coatings. Please contact our application engineering department.

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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