TPE-SEBS 1300 85A Filament

TPE-SEBS 1300 85A 3D printing filament is a Shore 85A elastomer that does not require drying to process and has excellent bed adhesion and ease of printing. TPE-SEBS 1300 85A has low moisture absorption and has better elasticity for applications that require high flexibility and durability. It works on all open-platform direct drive 3D printers and can be run on desktop 3D Printers with PTFE Bowden Tubes. TPE-SEBS can stretch over 600% and is much easier to print than TPU filaments.

TPE-SEBS 85A can be used for parts that need elastomeric properties that can bend, flex and stretch without the need for a heated print bed and has demonstrated a very high success rate in printing complex geometries. TPE-SEBS is similar to rubber and other thermoplastic elastomers in its properties, soft to the touch while still being strong and flexible. It is well suited to printing parts that need to dampen vibrations or products that need to retain flexible properties under weather or heat exposure while still maintaining good elastic properties; such as seals, gaskets, no skid / no mark feet, soft touch grips for power tools, and no slip mats for auto interiors.

STORAGE AND USE

Because the material is non-hygroscopic, there is no need to dry the filament during printing.

ADVANTAGES

The TPE-SEBS 85A is a soft material which is great for prototyping where rubber-like or elastomeric properties are required. Advantages of the TPE-SEBS include: low moisture absortion, high flexibility, less visible layer lines, and higher print success rate.

PROPERTIES

MECHANICAL PROPERTIES[1]

	Test Condition	Typical Value	Method
Tensile Modulus (MPa)	XY coupons, Ambient	19	ASTM D638, Type IV
Tensile Elongation at Break (%)	XY coupons, Ambient	900	ASTM D638, Type IV
Ultimate Tensile Strength (MPa)	XY coupons, Ambient	6	ASTM D638, Type IV
Compression Set (%)	XY coupons, Ambient	45	ASTM D395
Tear Strength (N/mm)	XY coupons, Ambient	66	ASTM D624
Durometer (Shore A)	Molded, Ambient	85	ASTM D2240

[1]Testing conducted on printed coupons using Jabil's published print profiles. Typical values are for reference only.

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THERMAL PROPERTIES

	Test Condition	Typical Value	Method
Melt Temperature (°C)	20°C/min ramp	163	DSC

OTHER PHYSICAL PROPERTIES

	Test Condition	Typical Value	Method
Density (g/cm3)	Ambient	1.056	ASTM D792

DIMENSIONAL PROPERTIES

	Test Condition	Typical Value	Method
Diameter: Mean, Indiv. Axis (mm)	In-line, 100% inspection	2.85	Laser Micrometer

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