TPU-88A

Description

TPU 88A is a versatile material for laser sintering. This material is easy to print and offers good UV resistance and hydrolysis resistance. TPU 88A should be stored in a clean and dry environment, kept in its original sealed packaging, at a storage temperature of 15-35°C.

Features

Features: Good flexibility and shock absorption, and ability to print intricate structures, with balanced performance.

Color: White powder

Recommended applications: Sports and leisure, footwear, transportation industry, jigs and fixtures.

Parameters

General Properties	Test Method	Typical Value
Bulk density / kg/m³	DIN EN ISO 60	0.5
Printed part density / g/cm³	DIN EN ISO 1183-1	1.1
Average particle size d50/μm	ISO 13320	70-90
Melting temperature / °C	ISO 11357 (20 K/min)	120-150
Glass transition temperature / °C	ISO 11357 (20 K/min)	-48
Melting temperature / °C	ISO 11357 (20 K/min)	120-150

Thermal Properties	Test Method	Typical Value, X	Typical Value, Z
Vicat Softening point 10N	DIN EN ISO 306	98	98
Mechanical Properties	**Test Method**	**Typical Value, X**	**Typical Value, Z**
Hardness - Shore (A)	DIN ISO 7619-1	88-90	88-90
Tensile Strength / MPa	DIN53504, S2	8	7
Elongation at Break / %	DIN 53504, S2	270	130
Tensile Modulus / MPa	ISO527-2,1A	75	75
Flexural Modulus / MPa	DIN ENISO 178	70	70
Tear Strength (propagation, Trouser) / kN/m	DINISO34-1, A	26	26
Tear Strength (initiation, Graves) / kN/m	DINISO34-1, B	43	37
Compression Resistance (23°C, 72h)/%	DIN ISO 815-1	24	24
Resilience / %	DIN 53512	63	63
Abrasion Resistance/ mm³ (Method A)	DINISO4649	86	95
Charpy Impact Strength (Notched, 23°C) / kJ/m²	DIN EN ISO 179-1	No break	No break
Charpy Impact Strength (Notched, -10°C) / kJ/m²	DIN EN ISO 179-1	60	58
Fatigue Performance (Rossflex, 100k cycles, 23°C)	ASTM D1052	No notch growth	
Fatigue Performance (Rossflex, 100k cycles, -10°C)	ASTM D1052	No notch growth	