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Fiche Technique

KIMYA TPU-92A 3D FILAMENT

Flexible filament for FFF 3D Printers

DESCRIPTION

Kimya TPU-92A is a 3D printing filament made from thermoplastic polyurethane (TPU). This material provides excellent resistance to heat and environmental factors, along with a Shore hardness of 92A. It's ideal for printing flexible and durable parts that need to withstand tough conditions. Kimya TPU-92A is widely used across industries such as food, electronics, automotive, and consumer goods. It combines flexibility, strength, and durability to meet the demands of all kinds of applications.

BENEFITS

- Heat & Environmental Resistance.
- Flexible & Durable.
- Applicable across multiple fields.

TECHNICAL DATA

Properties	Values	Test Methods
Diameter	1.75 ± 0.1 mm 2.85 ± 0.1 mm	INS-6712
Density	1.2 g/cm^3	ISO 1183-1
Moisture rate	< 0.5 %	INS-6711
Melt flow index (MFI)	21 g/10min	ISO 1133-1 (@210°C-2.16kg)
Properties	**Values**	**Test Methods**
Tensile Modulus	104 MPa (15.1 ksi)	ISO 37/2/500
Tensile Strength	28 MPa (4.1 ksi)	ISO 37/2/500
Tensile Strain at Strength	296 %	ISO 37/2/500
Tensile Stress at Break	28 MPa (4.1 ksi)	ISO 37/2/500
Tensile Strain at Break (type A)	307 %	ISO 37/2/500
Flexural Modulus	96 MPa (13.9ksi)	ISO 178
Deformation at Flexural Strain	< 5 %	ISO 178
Flexural Stress at Conventional Deflection (3.5% Strain)*	3.5 MPa (0.5 ksi)	ISO 178
Charpy Impact Resistance	No Break	ISO 179-1/1eA
Shore Hardness	92 A	ISO 868

PROCESSING

Printing Direction	XY
Printing Speed	Initial layers: 10-20 mm/s, further layers 30-60 mm/s
Nozzle Temperature	210°C - 250°C (410°F - 482°F)
Bed Temperature	60°C - 90°C (140°F - 194°F)

NOTES

- *According to ISO 178, end of the test at 5% deformation even if there is no specimen break.
- The data should be considered as indicative values - Properties can be influenced by production conditions.