



TPU (Polyurethane) (MJF)

Alternative Designations

Thermoplastic Polyurethane

Key Features

Semi-flexible • Corrosion resistance • Resistance to chemicals

Description

Thermoplastic polyurethane blends the features of rubber and plastic into a soft material. It contains strong interlayer bonding that boosts its resistance to chemicals. Industrial oils and chemicals have little effect on this material due to its good corrosion resistance. Notwithstanding, TPU is semi-flexible in nature and its common applications include functional prototypes, sleeves, guides, and protective cases.

Mechanical Properties

Tensile modulus	26 MPa
Tensile strength	8.6 MPa
Elongation at break	580%
Hardness (Shore A)	95

Thermal Properties

Melting temperature (20°C/min)	220°C
Heat deflection temperature (1.80 MPa)	49°C
Heat deflection temperature (0.45 MPa)	74°C

Physical Properties

Density	1.22 g/cm ³
---------	------------------------

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.