

TPU White Datasheet



Overview

TPU White is compatible with AIHFabs's SLS 3D printing technology, where a laser is used to sinter powdered TPU material, fusing it layer by layer to create durable, flexible parts. SLS 3D printed TPU White exhibits excellent flexibility, high impact resistance, and good elongation, making it perfect for applications that demand resilient and long-lasting components.

As-printed Part's Tolerance: $\pm 300\mu\text{m}$ or 0.3%

Maximum Printing Size: 380*380*284mm

Properties

Thermal Properties	Metric	Method
Melting Point	165°C	DSC
Dense Properties	Metric	Method
Density	1.21 g/cm ³	ASTM D1505
Mechanical Properties	Metric	Method
Tensile Strength	20MPa	ASTM D638
Elongation at Break	> 350%	ASTM D638M
Shore Hardness	85-90A	ASTM D2240
Other Properties	Metric	Method
Grain Size	65 μm	ASTM D328

Pros

This material is well-suited for creating soft grip systems, flexible tubing, protective gear, and non-marring tooling.

Cons

Products printed with TPU may have a grainy surface, additional post-processing may be necessary to achieve the desired color.

Applications

Custom Orthopedic Models

Shoe Soles and Hoses Prototypes

Brackets

Protective Gears

Custom-fit Wearables

Living Hinges

Medical Tubing and Seals

Bike Seats

Custom Gasket and Bearings