sculpteo

A brand of BASF - We create chemistry

Ultrasint® TPU01

Thermoplastic Polyurethane Powder for HP Jet Fusion Printers

The Multijet Fusion TPU 01 (or MJF TPU) objects are created from a fine Thermoplastic Polyurethane powder. This material offers durable, strong, and flexible parts. MultiJet Fusion TPU is a perfect 3D printing material choice if you need to produce parts requiring shock absorption, high elasticity, and energy return. For flexible lattices and complex parts, this material is ideal.

Benefits at a Glance

- High elasticity and rebound
- Good shock absoption
- Low compression set
- Good fatigue behavior

Mechanical Properties

	xy-direction	z-direction
Hardness Shore A	88 - 90	88 - 90
Abrasion loss / mm	190 - 240	150 - 170
Tensile strength / MPa	8 - 8.5	5 - 6.5
Elongation at break /%	260 - 330	50 - 100
Tear resistance /kN/m	36 - 50	
Rebound resilience /%	62 - 63	

Applications

Our flexible Multijet Fusion TPU has great mechanical properties. Indeed, this material offers versatility and can be used for many different applications. Parts requiring the use of a rubber-like elasticity or flexible lattices can easily be 3D printed with this material. From functional prototyping to production, these material properties offer a lot of opportunities.

Sports & Health

Thanks to its quality, high flexibility, shock absorption, and rebound, our Multi Jet Fusion TPU can be used to manufacture footwear, orthopedic models, and sports protection equipment.

Automotive

With its flexibility, Multijet Fusion TPU can also be used in the automotive industry, to create car interior components, air filter covers, bellows gimbal, or any flexible and resistant parts.

Robotics

TPU is a strong plastic material and can be 3D printed to create industrial tools or pipes for example. It also offers high friction possibilities, allowing to 3D print grippers, used for robotic or industrial uses.