HP Multi Jet Fusion

PA 12

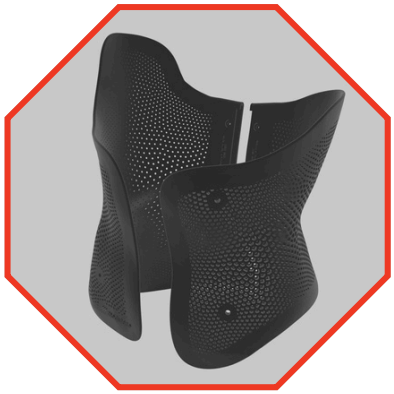
Description

Nylon PA 12 is a versatile 3D printing material known for its excellent mechanical properties, including high strength, toughness, and chemical resistance. As a popular choice in additive manufacturing, Nylon PA 12 offers exceptional durability, making it ideal for producing functional prototypes and end-use production parts. This robust thermoplastic is commonly used for complex assemblies, housings, enclosures, and watertight applications.

Benefits

- Chemically resistant to oils, greases, aliphatic hydrocarbons, and alkalines
- Biocompatibility: Meets USP Class I-VI and US FDA guidance for Intact Skin Surface Devices
- Water and air proof without additional treatment
- High strength and durability
- Achieves 80% surplus powder reusability

A Versatile 3D Printing Polymer



Material Properties

	PA 12	Test Method
Description	HP 3D High Reusability PA 12	
Tensile Strength (MPa)	Average XY (48) Average Z (48)	ASTM D638
Tensile Modulus (MPa)	Average XY (1700) Average Z (1800)	ASTM D638
Elongation at Break (%)	Average XY (20) Average Z (15)	ASTM D638
Impact Strength (KJ/m2)	Average XY (4.8) Average Z (4.1)	ASTM D256
Heat Deflection Temperature	347ºF @ .45 MPa	ASTM D648
Powder Melting Point (DSC)	369°F	ASTM D3418
Particle Size (µm)	60	ASTM D3451
Density (g/cm3)	1.01	ASTM D792
Refresh Ratio (%)	20	