

PA12

Multi Jet Fusion (MJF)



A robust nylon material for producing high-density parts with balanced property profiles and detailed structures

An adaptable general-use material, which produces parts which are high in density and low in porosity. The perfect choice when you require parts with crisp details and thinner walls than Selective Laser Sintering is able to offer.

Why choose PA12?

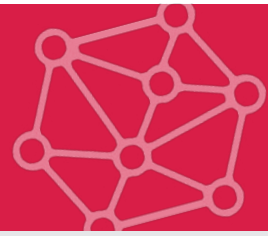
- Produce strong, functional complex parts
- Watertight and airtight parts without post-processing
- Produce more detailed surface resolution or thinner walls than Selective Laser Sintering technology
- Provides excellent chemical resistance to oils, greases, aliphatic hydrocarbons, and alkalis
- Biocompatibility certification (meets USP Class I-VI and US FDA guidance for Intact Skin Surface Devices)
- Parts can be smoothed and joined
- Parts can be dyed

Applications

- Functional prototypes and end-use parts
- Ideal for complex assemblies, housings, enclosures, and watertight applications
- Parts with crisp textures, embossing and engraving, or labels.
- Healthcare and orthopaedic products

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General properties	Value (XY Axis)	Test method
Colour	Stone-grey	Visual
Part density	1.01 g/cm ³	ASTM D792

Thermal properties	Value (XY Axis)	Test method
Melting temperature	187° C	ASTM D3418 (10°C/min)
Heat deflection temperature (0.45Mpa)	175° C	ASTM D648
Heat deflection temperature (1.8Mpa)	95° C	ASTM D648

Mechanical properties	Value (XY Axis)	Test method
Tensile strength, max load (XY direction)	48 MPa	ASTM D638
Tensile strength, max load (Z direction)	48 MPa	ASTM D638
Tensile modulus (XY direction)	1700 MPa	ASTM D638
Tensile modulus (Z direction)	1800 MPa	ASTM D638
Elongation at break (XY direction)	20%	ASTM D638
Elongation at break (Z direction)	15%	ASTM D638
Flexural strength at 5% (XY direction)	65 MPa	ASTM D790
Flexural strength at 5% (Z direction)	70 MPa	ASTM D790
Flexural modulus	1730 MPa	ASTM D790
Impact strength – Izod (notched)	3.5 kJ/m ²	ASTM D256 A

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Have a question? Call our friendly team on

+44 (0) 800 304 7196

Specifications are subject to change without notice.

The technical data indicated above is an average value of the test result of a part created under proper management and appropriate conditions.
The value is for reference and is not guaranteed.