

Material Specification

Multi Jet Fusion (MJF)



PA12 Nylon

Material- PA12 Nylon

Material Features

Produce strong, functional and detailed complex parts. Achieve quality at a low cost per part while reducing your carbon footprint.

Applications:

- Gain versatility to produce a broad range of parts:
 - Automotive
 - Eyewear
 - Ideal for complex assemblies, housings, enclosures, and watertight applications
- Orthotics and prosthetics requiring ductile material.
- Bio-compatibility—meets USP Class I-VI and U.S. FDA guidance for Intact Skin Surface Devices.
- Meets strict automotive safety standards, including the Federal Motor Vehicle Safety Standards (FMVSS).



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Technical Data

HP 3D HR PA12	Axis	Average value	Method
Tensile Strength (MPa) ^{iv}	XY	50	ASTM D638
	Z	50	
Tensile Modulus (MPa) ^{iv}	XY	1900	ASTM D638
	Z	1900	
Elongation at Yield (%)	XY	10	ASTM D638
	Z	8	

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Technical Data

HP 3D HR PA12	Axis	Average value	Method
Elongation at Break (%)	XY	17	ASTM D638
	Z	9	
Impact strength {kJ/m²)v	XY	4.2	ASTM D256
	Z	3.8	
Density (g/cm³)	XY	1.01	ASTM D792
	Z	1.01	

Printer's Specification

Multi Jet Fusion (MJF)

HP JetFusion 5200 Printer Specifications

Printer Performance

Technology	HP Multi Jet Fusion Technology
Effective Build volume	380 X 284 X 380mm(15 x 11.2 x 5in)
Building speed	Up to 5058 cm ³ /hr (309in ³ /hr)
Layer Thickness	0.08 mm (0.003in)
Job processing resolution (X,Y)	1200 dpi
Print resolution (X,Y)	1200 dpi

Dimensions

Printer	2210 x 1268 x 1804 mm (87 x 50 x 71 in)
Operating area	3700 x 3700 x 2500 mm (146 x 146 x 99 in)

Weight

Printer	880 kg (1940 lb)
Build unit	140.5 kg (309.7 lb)