

Nylon PA12

Polyamide 12, Nylon 12

Nylon PA12 MJF is a versatile material that allows you to quickly make prototypes and functional parts (1 to 10,000 parts in 3 days). It is a real alternative to injection molding and gives you absolute design freedom.



Material properties

Density	ASTM D792	1.01	g/cm ³
Water absorption at saturation	ISO 62	1.50	%
Hygroscopicity	ISO 62	0.70	%
Suitability for food contact	CE 1935/2004 – 10/2011	NO	
Tensile strength	ASTM D638	48	MPa
Elongation at break	ASTM D638	20	%
Yield strength	ISO 527	40	MPa
Elastic modulus	ASTM D638	1700	MPa
Flexural strength	ASTM D790	70	MPa
Resilience	ISO 179	45	kJ/m ²
Hardness	ASTM D2240	80 D	Shore
HDT 0.45 MPa	ASTM D648	175	°C
HDT 1.8 MPa	ASTM D648	95	°C

Printing layer height

0.003 in (0.08 mm)

Maximum dimensions

15x11.2x15 in (380x284x380 mm)

Tolerances

± 0.01 in < 3.94 in / ± 0.3% > 3.94 in

Applications

For functional prototypes and final parts. Excellent chemical resistance to oil, grease, hydrocarbons. Excellent base for subsequent surface finishes. US FDA guidance for Intact Skin Surface Device, Statement of Composition for Toy Applications.

All data is provisional from beta testing of the material and process. Additional tests and properties will integrate this datasheet as soon as available. Information contained in this data sheet is up-to-date and correct as at the date of issue. As MJF 3D Hub cannot control or anticipate the conditions under which this product may be used, each user should review the information in the specific context of the planned use. To the maximum extent permitted by law, we will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this data sheet. No express or implied warranties are given other than those implied mandatory by law.