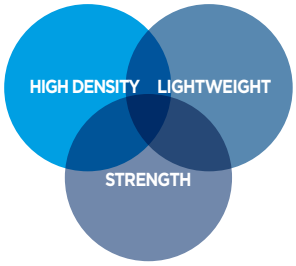
GENERAL DATA SHEET MJF



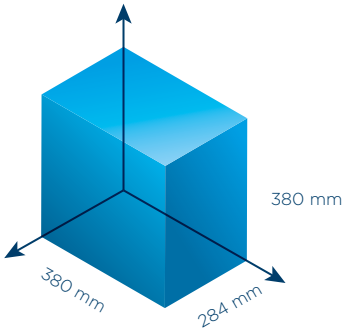
Multi Jet Fusion (MJF) is a powder-based AM process patented by HP that uses fusion energy and two agents; such are selectively jetted, with the fusing agent used to weld the particles that make up the finished part, while the detailing agent is used to define edges and details.

Companies whose priority is to have thermoplastic components with complex geometries, with a short lead time and at the most competitive costs in the additive manufacturing scenario, will find the solutions related to MJF technology very advantageous.

Parts produced with this technology are characterized by a good surface finish, high density, isotropic mechanical properties, excellent chemical resistance to oil, hydrocarbons, alkalis and are biocompatible, for applications in direct contact with human skin.

MAX PRINT SIZE:

380 x 284 x 380 mm



BENEFITS:

- GOOD SURFACE FINISH
- HIGH CHEMICAL RESISTANCE
- HIGH ISOTROPY
- HIGH DENSITY

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PA 12

MECHANICAL FEATURES	STANDARD TEST	METRIC	ENGLISH
Tensile Strength	ASTM D638	48 MPa	6960 psi
Tensile modulus	ASTM D638	1800 MPa	261 ksi
Elongation at Break	ASTM D638	20%	20%
Flexural Strength	ASTM D790	70 MPa	10150 psi
Flexural Modulus	ASTM D790	1800 MPa	261 ksi
Izod Impact notched (Method A, 23° C)	ASTM D256	3.6 kJ/m²	1.71 ft-lb/in²

OTHER FEATURES	STANDARD TEST	VALUE
Specific weight	ASTM D792	1.01
Fire reaction classification	UL94	HB
Biocompatibility Certification	USP Class I-VI/US FDA guidance	Certificated

THERMAL FEATURES	STANDARD TEST	METRIC	ENGLISH
Heat Deflection Temperature (HDT) @264 psi, 1.82"	ASTM D648	95 °C	203 °F
Heat Deflection Temperature (HDT) @66 psi, 0.45"	ASTM D648	175 °C	347 °F

BASF Ultrasint® TPU01

MECHANICAL FEATURES	STANDARD TEST	TYPICAL VALUES X-DIRECTION	TYPICAL VALUES Z-DIRECTION
Tensile Strength	DIN 53504, S2	9 MPa	7 MPa
Tensile modulus	ISO 527-2, 1A	75 MPa	85 MPa
Elongation at Break	DIN 53504, S2	220%	120%
Flexural Modulus	DIN EN ISO 178	75 MPa	75 MPa
Hardness	DIN ISO 7619-1	88 ShA	88 ShA
Compression Set B (23°C, 72h)	DIN ISO 815-1	20%	20%
Vicat/A (10 N)	DIN EN ISO 306	84 °C	96 °C

OTHER FEATURES	STANDARD TEST	VALUE
Specific weight	DIN EN ISO 1183-1	1.1
Fire reaction classification	UL94	HB

KEY:

Manufacturing Tolerances: +/- 0,3% with a minimum value of +/- 0,2 mm[1]

[1] - It depends on geometry.

NOTES: Available colors: black, grey.

BASF Ultrasint® TPU01 is a BASF Group's trademark. The information published on this brochure are meant for informational purposes only and are not of an official nature. For any further information please contact Spring S.r.l. +39 0444 557570 or visit the website www.spring-italia.com.
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