



Visijet® M2E-NT

Elastic

Elastomeric soft rubber-like plastic with translucent yellow finish delivering a 30A Shore hardness

ProJet MJP 2500

Similar to the Visijet M2-BK (black) material, Visijet M2-NT is a soft rubber-like elastomer designed for general-purpose, engineering and medical prototyping needs. Even as a soft elastomer, it still achieves smooth and blemish free “molding quality” surface with high-feature fidelity, sharp corners and edges.

It is an excellent rapid prototyping material for medical modeling, simulating seals and gaskets, and overmolding of rigid plastic prototypes. It is soft like silicone rubber and can be used for fit and function on prototypes but does not achieve many of the properties of silicone rubber.

Its flexibility and thermal properties allow it to be used to inject wax for investment casting patterns and can be used as a direct-printed silicone or two-part polyurethane mold with moderate to complex overhangs that require substantial flexing and bending to release the part after curing.

APPLICATIONS

- General prototyping of soft rubbers and elastomers
- Accurate and flexible molds for investment casting patterns
- Accurate and flexible molds for two-part polyurethane part production
- Medical modeling

BENEFITS

- High fidelity fine features, sharp edges and high accuracy
- Exceptional smooth and consistent surface finish with the ability to create complex surface textures
- Can be post-processed for higher stiffness and tear strength, or for a softer material with better rebound properties

FEATURES

- Shore D 30A
- Highly flexible and bendable

Note: Not all products and materials are available in all countries — please consult your local sales representative for availability.

MATERIAL PROPERTIES

The full suite of mechanical properties is given per ASTM and ISO standards where applicable. Properties like flammability, dielectric properties and 24-hour water absorption are also provided for better understanding of material capabilities to help design decisions using the material. All parts are conditioned per ASTM recommended standards for a minimum of 40 hrs at 23°C, 50% RH.

Solid material properties reported were printed along the vertical axis (ZX-orientation). As detailed in the Isotropic Properties section, material properties are relatively uniform across print orientations. Parts do not need to be oriented in a particular direction to exhibit these properties.

LIQUID MATERIAL						
Color	Natural					
Package Volume	1.5 kg bottle					
SOLID MATERIAL						
METRIC	ASTM METHOD	METRIC	ENGLISH	ISO METHOD	METRIC	ENGLISH
PHYSICAL				PHYSICAL		
Solid Density	ASTM D792	1.12 g/cm ³	0.04 lb/in ³	ISO 1183	1.12 g/cm ³	0.04 lb/in ³
24 Hour Water Absorption	ASTM D570	0.9 %	0.9 %	ISO 62	0.9 %	0.9 %
MECHANICAL				MECHANICAL		
Tensile Strength Ultimate	ASTM D638 Type IV	1.4 MPa	145 psi	ISO 527 -1/2	1.7 MPa	145 psi
Tensile Strength at Yield	ASTM D638 Type IV	N/A	N/A	ISO 527 -1/2	N/A	N/A
Tensile Modulus	ASTM D638 Type IV	2 MPa	0.3 ksi	ISO 527 -1/2	9 MPa	1.3 ksi
Elongation at Break	ASTM D638 Type IV	>200%	>200%	ISO 527 -1/2	>200%	>200%
Elongation at Yield	ASTM D638 Type IV	N/A	N/A	ISO 527 -1/2	N/A	N/A
Tensile Stress at 50% Elongation	ASTM D638 Type IV	0.16 MPa	0 psi	ISO 527 -1/2	N/A	#VALUE!
Tensile Stress at 100% Elongation	ASTM D638 Type IV	0.25 MPa	0 psi	ISO 527 -1/2	N/A	#VALUE!
Tear Strength	ASTM D624 Type C	4.7 kN/m	23 lbf/in	ISO 34-1	4.7 kN/m	23 lbf/in
Tear Strength	ASTM D624 Type T	1.6 kN/m	9.1 lbf/in	ISO 34-1	1.6 kN/m	9.1 lbf/in
Shore Hardness	ASTM D2240	39 A	39 A	ISO 7619	39 A	39 A
Compression Set (%) 23C	ASTM D395	0.7 %	0.7 %	ISO 815-B	0.7 %	0.7 %
Compression Set (%) 50C	ASTM D395	N/A	N/A	ISO 815-B	N/A	N/A
Bayshore Rebound	ASTM D2632	8 %	8 %			
THERMAL				THERMAL		
Tg (DMA, E")	ASTM E1640 (E"Peak)	-5 °C	23 °F	ISO 6721-1/11 (E" Peak)	-5 °C	23 °F
CTE -50 to -15C	ASTM E831	85 ppm/°C	47 ppm/°F	ISO 11359-2	85 ppm/K	47 ppm/°F
CTE 0 to 50C	ASTM E832	206 ppm/°C	114 ppm/°F	ISO 11359-2	206 ppm/K	114 ppm/°F
UL Flammability Rating	UL94	HB				
ELECTRICAL				ELECTRICAL		
Dielectric Strength (kV/mm) @ 3.0 mm thickness	ASTM D149	316				
Dielectric Constant @ 1 MHz	ASTM D150	4.46				
Dissipation Factor @ 1 MHz	ASTM D150	0.132				
Volume Resistivity (ohm-cm)	ASTM D257	1.54E+11				

STRESS-STRAIN CURVE

The graph represents the stress-strain curve for Visijet M2E-NT per ASTM D638 testing.

