

High Temperature

High Temperature offers the highest heat deflection of any standalone PolyJet™ material, ideal for thermal testing prototypes that require high heat resistance. High Temperature also offers excellent surface quality, strength and stiffness, simulating the thermal performance and strength of engineering plastics.

With a heat deflection temperature of 80 °C after thermal treatment, High Temperature is ideal for testing static parts and hot-air flow or hot-water flow in pipes and faucets. Create heat-resistant parts with varying Shore A values by combining High Temperature with PolyJet rubberlike materials.

Build heat-resistant, high-definition parts ideal for form, fit and thermal functional testing such as models that must endure strong lighting conditions, taps, pipes and household appliances.

	ASTM	Value
Tensile strength	D-638-03	10,000 – 11,500 psi (70 – 80 MPa)
Elongation at break	D-638-05	10 – 15%
Modulus of elasticity	D-638-04	465,000 – 510,000 psi (3,200 – 3,500 MPa)
Flexural Strength	D-790-03	16,000 – 19,000 psi (110 – 130 MPa)
Flexural Modulus	D-790-04	450,000 – 510,000 psi (3,100 – 3,500 MPa)
HDT, °C @ 0.45 MPa	D-648-06	145 – 163 °F (63 – 67 °C)
HDT, °C @ 0.45 MPa after thermal post treatment procedure A	D-648-06	167 – 176 °F (75 – 80 °C)
HDT, °C @ 1.82MPa	D-648-07	131 – 135 °F (55 – 57 °C)
Izod Notched Impact	D-256-06	0.262 – 0.300 ft lb/inch (14 – 16 J/m)
Water Absorption, %	D-570-98 24hr	1.2 – 1.4%
Tg	DMA, E»	144 – 149 °F (62 – 65 °C)
Shore Hardness D	Scale D	87 – 88 87 – 88 Scale D
Rockwell Hardness	Scale M	78 – 83 87 – 88 Scale M
Polymerized density	ASTM D792	1.17 – 1.18 g/cm ³
Ash content	ASTM D792	0.38 – 0.42%

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System Availability	Support Structure	Available Colors
Objet30 Pro, Objet30 Prime™	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet Eden260VS™	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet260/500 Connex1™	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet260/350/500 Connex3™	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White

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