

Rigur

PolyJet Simulated Polypropylene Material

Rigur™ (RGD450) is an advanced simulated polypropylene photopolymer with improved toughness, increased dimensional stability and great surface finish. Offered in a bright white color, Rigur is ideal for flexible closures and living hinges; reusable containers and packaging; and white appliances including consumer goods, household appliances, consumer electronics and automotive parts. Digital Materials that combine Rigur with other base resins offer a range of gray color and Shore A options, expanding the applications for Rigur.

Mechanical Properties	Test Method	Value
Tensile Strength	D-638-03	40 – 45 MPa (5,800 – 6,500 psi)
Elongation at Break	D-638-05	20 – 35%
Modulus of Elasticity	D-638-04	1,700 – 2,100 MPa (246,000 – 305,000 psi)
Flexural Strength	D-790-03	52 – 59 MPa (7,500 – 8,500 psi)
Flexural Modulus	D-790-04	1,500 – 1,700 MPa (217,000 – 246,000 psi)
Izod Notched Impact	D-256-06	30 – 35 J/m (0.561 – 0.656 ft lb/inch)

Thermal Properties	Test Method	Value
Heat Deflection (HDT) @ 0.45 MPa	D-648-06	49 – 54 °C (120 – 129 °F)
Heat Deflection (HDT) @ 1.82 MPa	D-648-07	45 – 50 °C (113 – 122 °F)
Glass Transition (Tg)	DMA, E	48 – 52 °C (118 – 126 °F)

Other	Test Method	Value
Shore Hardness	Scale D	80-84 Scale D
Rockwell Hardness	Scale M	58-62 Scale M
Polymerized Density	ASTM D792	1.20-1.21 g/cm ³
Ash Content	USP 281	0.3 – 0.4%

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System Availability	Layer Thickness Capability	Support Structure	Available Color
Objet30 Pro™, Objet30 Prime™	28 microns (0.0011 in.)	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet Eden260VS™	16 microns (.0006 in.)	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet Eden260V™/350V™/500V™	High Quality mode: 16 microns (0.0006 in.) High Speed mode: 30 microns (0.0012 in.)	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet260/350/500 Connex3™	High Quality mode: 16 microns (0.0006 in.) High Speed mode: 30 microns (0.0012 in.)	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet1000 Plus™	Digital Material: 34 microns (0.0013 in.) High Speed mode: 34 microns (0.0013 in.) High Quality mode: 16 microns (0.0006 in.)	SUP705 (WaterJet removable)	<input type="checkbox"/> White

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