

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%

Rigur

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.) Digital Material: 34 microns (0.0013 in.)	SUP705 (WaterJet removable) SUP706B (soluble)	<input type="checkbox"/> White
Objet1000 Plus™	High Speed mode: 34 microns (0.0013 in.) High Quality mode: 16 microns (0.0006 in.)	SUP705 (WaterJet removable)	<input type="checkbox"/> White

The data included in this spec sheet is for your information purposes only and should not be considered specific advice to any particular customer project. Each customer is responsible for the design, functioning and all other decisions with regards to its particular projects and systems. The sale and provision of the products described in this brochure are subject to terms and conditions outlined in Stratasys' selling policies, contracts between the parties or Stratasys' Terms and Conditions of Sale. This spec sheet is not intended to and does not enlarge or add to any such contract or terms.

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Durus

Durus™ (RGD430) is the original simulated polypropylene material and exhibits great impact resilience and an elongation at break of 44 percent. Delicate features and small cavities are easily maintained with easily removed support material.

	ASTM	Value
Tensile Strength	D-638-03	2,900 – 4,350 psi (20 – 30 MPa)
Elongation at Break	D-638-05	40 – 50%
Modulus of Elasticity	D-638-04	145,000 – 175,000 psi (1,000 – 1,200 MPa)
Flexural Strength	D-790-03	4,350 – 5,800 psi (30 – 40 MPa)
Flexural Modulus	D-790-04	175,000 – 230,000 psi (1,200 – 1,600 MPa)
HDT, °C @ 0.45MPa	D-648-06	99 – 108 °F (37 – 42 °C)
HDT, °C @ 1.82MPa	D-648-07	90 – 93 °F (32 – 34 °C)
Izod Notched Impact	D-256-06	0.749 – 0.937 ft lb/inch (40 – 50 J/m)
Water Absorption	D-570-98 24hr	1.5 – 1.9%
Tg	DMA, E»	95 – 99 °F (35 – 37 °C)
Shore Hardness (D)	Scale D	74 – 78 Scale D
Polymerized Density	D792	1.15 – 1.17 g/cm ³
Ash Content	USP281	0.1-0.12%

System Availability

Printer	Minimum Layer Thickness Capability	Support Structure	Available Color
Objet30 Pro	14 microns (0.00055 in.)	SUP705™ (WaterJet removable) SUP706™ (soluble and WaterJet removable)	■ Ivory
Objet30 Prime™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory
Objet Eden260VS™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory
Objet260 Connex1™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory
Objet260 Connex3™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory

Durus

System Availability (Continued)

System Availability	Layer Thickness Capability	Support Structure	Available Color
Objet350 Connex3™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory
Objet500 Connex1™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory
Objet500 Connex3™	14 microns (0.00055 in.)	SUP705 (WaterJet removable) SUP706 (soluble and WaterJet removable)	■ Ivory

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