

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

THERMAL PROPERTIES	TEST METHOD	IMPERIAL	METRIC
Heat Deflection (HDT) @ 0.45 MPa	D-648-06	120 - 129 °F	49 - 54 °C
Heat Deflection (HDT) @ 1.82 MPa	D-648-07	113 - 122 °F	45 - 50 °C
Glass Transition (Tg)	DMA, E	118 - 126 °F	48 - 52 °C

OTHER	TEST METHOD	IMPERIAL	METRIC
Shore Hardness	Scale D	80 - 84 Scale D	80 - 84 Scale D
Rockwell Hardness	Scale M	58 - 62 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%	0.3 - 0.4%

