

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) |
| Flexual Strength | D-790-03 | 52 – 59 MPa (7,500 – 8,500 psi) |
| Flexual 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 | 28 microns | SUP705 (WaterJet removable) | □ White |
| Prime™ | (0.0011 in) | SUP706B (soluble) | |
| Objet Eden260VS™ | 16 microns (.0006 in) | SUP705 (WaterJet removable) SUP706B (soluble) | □ White |
| Objet Eden260V™/ | High Quality mode: 16 microns (0.0006 in.) | SUP705 (WaterJet removable) | □ White |
| 350V™/500V™ | High Speed mode: 30 microns (0.0012 in.) | SUP706B (soluble) | |
| Objet260/350/500 | High Quality mode: 16 microns (0.0006 in.) | SUP705 (WaterJet removable) | □ White |
| Connex3™ | High Speed mode: 30 microns (0.0012 in.) | SUP706B (soluble) | |
| 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) | □ White |

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