

ToughONE™

Highest Impact Resistance

ToughONE™ expands the capabilities of PolyJet™ technology, bridging the gap between visual appeal and functional performance. Now, you can seamlessly transition from form-fit visual prototypes to robust functional prototypes, making it the ideal choice for industries demanding both strength and precision.

Material Specifications			
Mechanical Properties	Test Method	ToughONE Out of Printer	ToughONE With Post-Cure (12 hr., 45 °C)
Tensile Modulus	ASTM D-638-04	2300-2500 MPa (333-362 ksi)	2300-2500 MPa (333-362 ksi)
Tensile Strength	ASTM D-638-03	38-42 MPa (5.5-6.1 ksi)	48-53 MPa (7.0-7.7 ksi)
Elongation at Break	ASTM D-638-05	45-55%	45-55%
Flexural Modulus	ASMT D-790-04	1600-1800 MPa (232-261 ksi)	2100-2400 MPa (305-348 ksi)
Flexural Strength	ASTM D-790-03	55-64 MPa (8.0-9.3 ksi)	77-87 MPa (11.2-12.6 ksi)
Izod Impact Unnotched	ASTM D-4812	1100-1350 J/m (20.6-25.2 ft lb/in)	1000-1250 J/m (18.7-23.4 ft lb/in)
HDT @ 0.45 MPa	ASTM D-646-06	47-50 °C (116.6-122 °F)	59-62 °C (138.2-143.6 °F)
Tg	ASTM DMA, E"	51 °C (132.8 °F)	74 °C (165.2 °F)
Shore Hardness	Scale D	80-82	81-83

System Availability	Layer Thickness Capability	Support Structure	Available Color
J826™ Prime J850™ Prime J850 Pro J835™	Horizontal build layers down to 14 microns (0.00055 in.), depending on print mode	SUP705 (WaterJet removable)	White

Note: Material properties may vary depending on printing parameters and post-processing conditions.