

# TOUGH Resin

TOUGH is a rigid, robust engineering material with a good combination of strength and elongation. TOUGH can be used to produce functional end-use parts.



		Cured Parts	Standard
Tensile Properties	TENSILE STRENGTH	82.9 MPa	ASTM D638
	ELASTIC MODULUS	2566 MPa	ASTM D638
	ELONGATION AT BREAK	14%	ASTM D638
Flexural Properties	FLEXURAL STRENGTH	122.4 MPa	ASTM D790
	FLEXURAL MODULUS	4 GPa	ASTM D790
Thermal Properties	HDT @ 0.45 MPa	78 °C	ASTM D648 - 07
	CTE @ 60C	118 µm/m/°C	-
General Properties	CONTACT ANGLE	30-50°	ASTM D7334
	WATER ABSORPTION (24h)	1.28%	ASTM D570
	DIELECTRIC CONSTANT (10 GHz)	2.88	-
	DF	0.033	-
	HARDNESS	74.5 Shore D	ASTM D785
	VISCOSITY	180 cP	-
	STANDARD COLOR	Yellow trans	-
	COMPATIBLE BMF SYSTEMS	P130, S130, P140, S140, P150, S230, S240	-

<sup>1</sup> Final properties are dependent on print conditions, post-processing operations, and part geometry.

<sup>2</sup> Test samples were UV cured and heat cured.