

Tough Resin

Introduction Tough Resin is an ABS like SL resin which has accurate and durable features. It is designed for

solid state SLA platforms. Tough Resin can be applied in master patterns, concept models, general parts and functional prototypes in the field of automotive, medical and consumer electronics industries. The parts durability building with Tough Resin is over 6.5 months.

Advantages

Building accurate and high tough parts with an improved dimensional stability

Improved strength retained, improved dimensions retention of parts in humid condition.

High quality controls for vacuum casting parts.

Low shrink and good resistance to yellowing.

Outstanding machinable SLA material.

Disadvantages

Tough Resin use and storage temperature should not be too high, please use below 25 °C; The relative humidity of use and storage must be below 38RH%.

Tolerance

200µm or 0.2%

Attributes

Heat Deflection Temperature (ASTM D 648@66PSI):	44~57 °C
Hardness (ASTM D 2240):	76-86 Shore D
Tensile Modulus (ASTM D 638):	2,559-2,678 MPa
Tensile Strength (ASTM D 638):	38~56 MPa
Elongation at Break (ASTM D 638):	8~14%
Flexural Strength (ASTM D 790):	69~73 MPa
Flexural Modulus (ASTM D 790):	2,670-2,758 MPa
Notched Impact Strength (ASTM D 25):	36~60 J/m
Thermal Expansion Coefficient (TMA(T<Tg):	90~103*E-6
Poisson's Ratio (ASTM D 638):	0.4~0.44
Dielectric Constant 1 MHz (ASTM D 150-98):	3.2~4.0
Glass Transition,Tg (DMA, E"peak):	46~62 °C
Dielectric Constant 60 Hz (ASTM D 150-98):	4.2~5.0
Dielectric Constant 1 kHz (ASTM D 150-98):	3.3~4.2
Dielectric Strength kV/mm (ASTM D 1549-97a):	12.8~16.1