SLA Materials – Rigid Resin

Lasty-709

Product Description

Lasty-709 is an ABS-like Stereolithography (SLA) resin which has accurate and durable features. It is designed for solid state SLA platforms. Lasty-709 can be applied in master patterns, concept models, general parts and functional prototypes in the field of automotive, medical and consumer electronics industries.

Typical Features

- Resin's medium viscosity supports facilitates easier post-curing and less part finishing time.
- Good accuracy and dimensional stability.
- Need minimal part finishing.

Physical Properties (Liquid)

Appearance	Light green, yellow
Density	1.11 - 1.15 g/cm³@25 °C
Viscosity	445 - 518cps @ 26 °C

Optical Properties

Critical Exposure (Ec)	8.3 - 9.1 mJ/ cm²
Penetration Depth (Dp)	0.135 - 0.158 mm
Recommended Building Layer Thickness	0.05 - 0.12 mm

Mechanical Properties

Property Description	Test Method	Metric
Heat Deflection Temperature (HDT)	ASTM D648 @ 66 psi	58 - 66 °C
Glass Transition (Tg)	DMA, E'' peak	62 - 71 °C
Coefficient of Thermal Expansion	TMA (T<Tg)	90 - 103 x 10^{-6} /°C
Tensile Modulus	ASTM D638	2649 - 2730 MPa
Flexural Modulus	ASTM D790	2712 - 2891 MPa
Tensile Strength	ASTM D638	41 - 60 MPa
Flexural Strength	ASTM D790	69 - 79 MPa
Poisson's Ratio	ASTM D638	0.4 - 0.44
Izod Impact (Notched)	ASTM D256	28 - 33 J/m
Elongation at Break	ASTM D638	7 - 11%
Hardness (Shore D)	ASTM D2240	78 - 88

Density		1.12 - 1.18 g/cm³
Dielectric Constant 60 Hz	ASTM D150-98	4.2 - 5.0
Dielectric Constant 1 kHz	ASTM D150-98	3.3 - 4.2
Dielectric Constant 1 MHz	ASTM D150-98	3.2 - 4.0
Dielectric Strength kV/mm	ASTM D149-97a	12.8 - 16.1

* The usage and storage temperature of Lasty-709 should not be too high. Please use it below 25 degrees Celsius; The relative humidity for use and storage must be below 38RH%.

Note: Material performance may vary depending on application, processing conditions and end-use environment. The information in this spec sheet is provided as typical values only and is not guaranteed.