

Lasty-R

Product Description

Lasty-R is an ABS-like Stereolithography (SLA) resin which has accurate and durable features. It has high toughness and is 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.
- Suitable for a wide range of applications, including vacuum casting masters.

Physical Properties (Liquid)

Appearance	Light green, yellow
Density	1.11 - 1.15 g/cm ³ @25 °C
Viscosity	450 - 530 cps@27 °C

Optical Properties

Critical Exposure (Ec)	7.1 - 8.1 mJ/cm ²
Penetration Depth (Dp)	0.14 - 0.16 mm
Recommended Layer Thickness of Construction	0.05 - 0.12 mm

Mechanical Properties (90-minute UV post-cure)

Property Description	Test Method	Metric
Heat Deflection Temperature (HDT)	ASTM D648 @ 66 psi	55 - 69 °C
Glass Transition (Tg)	DMA, E'' peak	60 - 79 °C
Coefficient of Thermal Expansion	TMA (T<Tg)	85 - 99 × 10 ⁻⁶ /°C
Tensile Modulus	ASTM D638	2611 - 2765 MPa
Flexural Modulus	ASTM D790	2685 - 2775 MPa
Tensile Strength	ASTM D638	45 - 58 MPa
Flexural Strength	ASTM D790	71 - 78 MPa
Poisson's Ratio	ASTM D638	0.40 - 0.45
Izod Impact (Notched)	ASTM D256	25 - 40 J/m
Elongation at Break	ASTM D638	13 - 22%
Hardness (Shore D)	ASTM D2240	78 - 90

Density	ASTM D150-98	1.12 - 1.18 g/cm ³
Dielectric Constant 60 Hz	ASTM D150-98	4.1 - 5.1
Dielectric Constant 1 kHz	ASTM D150-98	3.4 - 4.2
Dielectric Constant 1 MHz	ASTM D150-98	3.1 - 4.1
Dielectric Strength kV/mm	ASTM D149-97a	12.7 - 16.9

* Lasty-R should not be used or stored at excessively high temperatures; please use it below 25°C. The relative humidity during use and storage must be kept below 38% RH.

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.