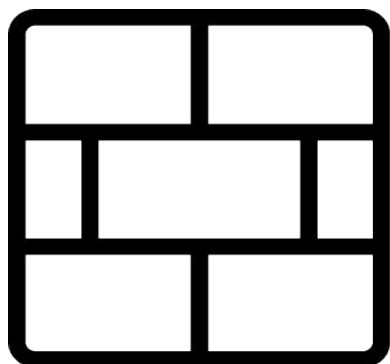


SOLID Tough Resin

SOLID is a reactive urethane photopolymer resin for tough Applications. Medium-viscous, highly reactive photopolymer for stereolithography applications resulting in tough multipurpose parts.

SOLID Resin



Typical features :

- High E-modulus
- High impact strength
- High UV stability

Applications examples :

- Demo & functional end-use parts
- Performance prototypes
- Electrical casings
- Snap-fit parts

AM systems :

(waves length from 355 to 410 nm)

- Stereolithography (SLA)
- Digital light processing (DLP)
- Liquid Crystal Display (LCD)

Key Points :

Used for functional applications with mechanical strength

Delivery form & warehousing

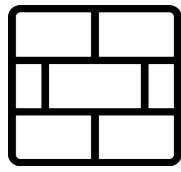
Material developed for UV curing using laser or other suitable UV light sources like UV LEDs. It is also sensitive to sunlight or intense daylight and should be handled accordingly, i.e. with light exclusion before application in the printing system. Store the photopolymer in an opaque container at room temperature. If stored under the mentioned conditions, the photopolymer should be used within 12 months. For further instructions, please refer to the safety data sheet

Product safety

Mandatory and recommended industrial hygiene procedures and the relevant industrial safety precautions must be followed whenever this product is being handled and processed. Product is sensitive to humid environment conditions. For additional information please consult the corresponding Material Safety Data Sheets (MSDS).

For your information

Currently available in transparent. Material is not FDA conform.



SOLID Tough Resin

FABULOUS
MATERIALS

General Properties :

Viscosity at 30°C : Viscosity at 50°C : Density Density (liquid resin)	Cone / Plate Rheometer ¹ Cone / Plate Rheometer ¹ ASTM D792 ASTM D4052-18a	215 mPas 80 mPas 1.2 g/cm ³ 1.12 g/cm ³
¹ Determined with TA-Instrument DHR rheometer, cone/plate, diameter 60 mm, shear rate 100 s ⁻¹		

Tensiles Properties :

E Modulus Ultimate Tensile Strength Elongation at break	ASTM D638 ASTM D638 ASTM D638	2300 MPa 62 MPa 25 %
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Flexural Properties :

Flexural Modulus Flexural Strength	ASTM D790 ASTM D790	2430 MPa 109 MPa
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Impact Properties :

Notched Izod (Machined), -30°C Notched Izod (Machined), 23°C Charpy notched, 23 ° C	ASTM D256 ASTM D256 ISO 179-1	20.2 J/m 20.8 J/m 1.39 Kj/m ²
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Thermal Properties :

HDT at 0,45 MPa HDT at 1,82 MPa Flammability	ASTM D638 ASTM D638 UV 94 1.5 mm	73°C 61°C HB
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Hardness :

Shore D	ASTM DD2240	81 ShD
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Other :

Biocompatibility	ISO 10993	Information available on request
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Data Sheet_SOLID_resin_Sept 2020.