

Technical Data Sheet

Engineering LCD Resin – Tough



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Product specifications

FormFutura's Engineering LCD Resin – Tough is an impact resistant 3D printing resin that combines toughness with durability and displays outstanding scratch resistance properties.

Our Engineering Resin – Tough is a perfect match for 3D printing functional prototypes and producing operational parts for various applications, ranging from household parts to industrial replacement parts.

Important key features

- High impact resistance.
- Durable and fatigue resistant.
- Excellent scratch resistance.
- Compatible with all open-source SLA, DLP, and LCD 3D printers in the range of 385 - 405nm.

Suitable applications

- Rapid functional prototyping.
- 3D printing protective cases.
- Manufacturing snap-fit assemblies.
- Tooling.
- Short-run manufacturing.

Physical properties after post curing

This data provided for those properties are typical values, and should not be construed as sales specifications.

Property	Typical value	Method
Tensile strength	28 MPa	ASTM D638M
Tensile modulus	1,0 GPa	ASTM D638M
Impact strength (IZOD notched)	43 J/m	ASTM D256A
Shore Hardness	69D	ASTM D2240
Elongation at break	15 - 25%	ASTM D638M
HDT-B (0,45MPa)	48,6 °C	ISO 75-2
Water sorption	0,6%	ASTM D570-98



Liquid properties	Typical value
Appearance	Clear liquid (no color)
Viscosity	800 cps at 25°C
Density	1,18 g/cm ³
Critical energy (EC)	14,47 mJ/cm ²
Penetration depth (Dp)	0,56 mm

Post curing parameters: Specimens are UV cured for 30 minutes via high power LED curing.

Storage and handling

Provided proper storage and handling precautions are taken we would expect Engineering LCD Resin – Tough to be technically stable for at least 18 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet on formfutura.com/downloads.

Product export information

HS Code	Description	Country of origin
29161400	Resin for 3D Printing	Netherlands

Disclaimer

All other information supplied, including that herein, is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine a product's suitability for a particular purpose. We make no warranty, express or implied, including regarding any information supplied or the data upon which it is based or the results to be obtained from the use of such products or information, or concerning product, whether of satisfactory quality, merchantability, fitness for any particular purpose or otherwise, or with respect to intellectual property infringement as a result of use of information or products, and none shall be implied.