Technical Data Sheet

Engineering LCD Resin – Strong

Print date: 03-01-2022

Product specifications

FormFutura's Engineering LCD Resin – Strong is an opaque black colored 3D printing resin that finds its "strength" in a unique combination of excellent flexural strength properties combined with impressive tensile strength properties. The combination of strength with stiffness make our Engineering LCD Resin – Strong a very versatile 3D printing resin for a wide range of heavy duty applications.

Important key features

- Flexural strength up to 120 MPa.
- Strong, stiff and durable.
- High dimensional accuracy and low shrinkage.
- Compatible with all open-source SLA, DLP, and LCD 3D printers in the range of 385 405nm.

Suitable applications

- Manufacturing jigs and figures.
- Functional prototyping.
- 3D printing manufacturing aids.
- 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	72 MPa	ASTM D638M	
Tensile modulus	1,5 - 2,5 GPa	ASTM D638M	
Impact strength (IZOD notched)	18 J/m	ASTM D256A	
Flexural strength	110 - 120 MPa	ASTM D790M	
Flexural modulus	2,5 - 3,0 GPa	ASTM D2240	
Shore Hardness	86D	ASTM D2240	
Elongation at break	6%	ASTM D638M	
Glass transition temperature (Tg)	~113 °C	Internal method	
Water sorption	0,4%	ASTM D570-98	1

Liquid properties	Typical value
Appearance	Opaque black liquid
Viscosity	500 cps at 25°C
Density	1,18 g/cm ²
Critical energy (EC)	6,87 mJ/cm ²
Penetration depth (Dp)	0,35 mm

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

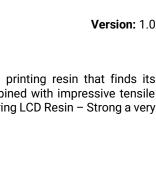
Storage and handling

Provided proper storage and handling precautions are taken we would expect Engineering LCD Resin – Strong 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





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