

# Technical Data Sheet

## Engineering LCD Resin – Strong



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### 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



Liquid properties	Typical value
Appearance	Opaque black liquid
Viscosity	500 cps at 25°C
Density	1,18 g/cm <sup>3</sup>
Critical energy (EC)	6,87 mJ/cm <sup>2</sup>
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](http://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*

**More information:** [www.formfutura.com](http://www.formfutura.com)

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