



## Liqcreate Flame Retardant HDT

A flame retardant 3D-printing resin with a high HDT for Digital Light Processing (DLP), Liquid Crystal Display (LCD) and laser based 3D-printers. Liqcreate Flame Retardant HDT is self-extinguishing and passes UL94 V0 test standards. This makes it perfect for applications in electronics, aviation, automobile, and the railway industry.

### Product description

Liqcreate Flame Retardant HDT is a rigid off-white photopolymer resin that can be processed on most open resin based 3D-printers. 3D-printed parts from this material can withstand high temperatures without posing a fire hazard due to its self-extinguishing capabilities. This material is perfect for creating parts that need to comply with UL94 V0 test standards. For example: interior parts in cars, airplanes, trains and electronic devices. In addition, it can be excellent for tooling manufacturing aids, connector housings and covers.

### Key benefits

- Self-extinguishing, UL94 V0
- High temperature resistance
- Extremely rigid
- Fast printing

### 3D-Printer compatibility

- Asiga UV series
- Nexa3D XiP (*open license*)
- Elegoo & Anycubic series
- Phrozen series
- [Open 385 - 420nm DLP, LCD and SLA 3D-printers](#)

### Order information

Order directly at the [Liqcreate store](#) or send your inquiry to [order@liqcreate.com](mailto:order@liqcreate.com) with the following order numbers.

Liqcreate Flame Retardant HDT  
Liqcreate Flame Retardant HDT

250gram  
1 kg

Order number LFRH00250  
Order number LFRH01000





## Liqcreate Flame Retardant HDT Technical Data

Liquid properties			
Appearance	White liquid	Ec (405nm)	6,25 mJ/cm <sup>2</sup>
Viscosity	2800 mPas.s at 25 °C	D <sub>p</sub> (405nm)	0,234 mm
Density	1,18 g/cm <sup>2</sup>	Ec (385nm)	3,11 mJ/cm <sup>2</sup>
		D <sub>p</sub> (385nm)	0,095 mm

Polymer properties			
Description	ASTM / ISO Method	UV Curing 60 minutes at 60 °C <sup>[1]</sup>	UV Curing 120 minutes at 60 °C <sup>[1]</sup>
Tensile strength	D638M	41 MPa	43 MPa
Elongation at break	D638M	1 - 3 %	1 - 3 %
Tensile modulus	D638M	4,2 GPa	4,2 GPa
Flexural strength	D790	73 MPa	67 MPa
Flexural modulus	D790	4,3 GPa	4,4 GPa
IZOD Impact notched	ISO 180	1,74 kJ/m <sup>2</sup>	1,85 kJ/m <sup>2</sup>
IZOD Impact notched	D256	13 J/m	13 J/m
Water sorption	D570-98	0,41%	0,41%
Degradation temperature	Internal method	> 250 °C <sup>[2]</sup> / 482 °F <sup>[2]</sup>	> 250 °C <sup>[2]</sup> / 482 °F <sup>[2]</sup>
HDT-B 0.45 MPa	ISO75	237 °C / 459 °F	257 °C / 495 °F
HDT-A 1.80 MPa	ISO75	137 °C / 279 °F	145 °C / 293 °F
Shore D Hardness	D2240	88	89
Flammability	UL94 V0	3.0 mm	
FAR 25.853 <small>Appendix F, Part I (a) (1) (ii) 12 seconds Vertical Burn</small>	Internal method	1.5 mm	

<sup>[1]</sup>Post-cured 60 minutes or 120 minutes with high power LED curing at 60 °C in the Wicked Engineering curebox. These values may vary and depend on individual machine processing and post-curing.

<sup>[2]</sup>discoloration Above 200 °C. Material properties can vary with part geometry, print orientation, print settings and post-curing settings.