

TECHNICAL DATASHEET HIGH PRECISION UV RESINS FOR DLP 3D TECHNOLOGIES

REV 1.0 | JUL 2020

TYPE D TOUGH

UV RESIN FOR FUNCTIONAL PROTOTYPING

polymere with high toughness. low yellowing.

high level of detail and sharp contours

smooth and dry object surface

very reactive. fast curing. low odor

PHYSICAL PROPERTIES:

Viscosity: 33 - 57 mPa·s
Shrinkage: approx. < 0.3%
Hardness Shore: > 80.5 D
E-Modulus: 1660.0 MPa
Tensile Strength: 48.2 MPa
Elongation at Break: 5.9%

Made in Germany

DESCRIPTION GERNERAL

Type D Tough is used for 3D printers, with DLP or LCD/LED (DUP) technologies. This datasheet describes the technical properties and application of the resin. Safety aspects are described in the according safety data sheet. The resin is filled in HDPE bottles with UN-approval for transportation (UN 3H1/x1.9/250). Each bottle carries a sticker indicating the according signs on hazards from the content, gives a link to the safety data sheet and indicates the track ID of the production LOT and expiration date.

STORAGE AND HANDLING

Use the resin before the expiration date as indicated on the sticker of the bottle. The bottle shall be stored in a dry, dark cool and well ventilated place. Avoid entering of moisture into the bottle. The resin shall not be contaminated with light.

This document does not describe the safety aspects of the product. Before handling and usage, please carefully read the safety data sheet of this product, as well as the sticker on the bottle to ensure safe handling and avoidance of physical and healthrelated hazards.

LIMITATION

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. The Type D resins are designed for modelling only and not for use inside the body or in the oral cavity.

PREPARATION

Before using the resin, shake the bottle well to maintain a good blending before the application. During storage, color pigments may deposit on the ground of the bottle.

- 1. Use protection gloves and safety glasses use respirator in case of inadequate ventilation.
- 2. Unboxing: check originality ring, check for leakage at bottle.
- 3. Preparation of working area: clean table, ventilated room or fume hood, inspection of FEP foil/testing of tank in printer.
- Inspect baseplate: if it's coated, please consider removing the coating, since it reduces the adhesion of the model. The resin perfoms best on bare metal baseplates.

Information about exposure times:



POST-PRINTING

- 1. Let the material drip off over the vat/tub of your 3D printer
- 2. Remove model from baseplate.
- Wash resin off by submerging the print in isopropanol or use an ultrasonic cleaner. Don't leave the printed model in Isopropanol longer than 5 min. Rinse it off and let it dry completely before proceeding.
- 4. Let the print postcure in UV light for 3 min.
- 5. Remove support structures.

ANY QUESTIONS? GET IN TOUCH.

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