

User Guideline

Ultracur3D® DMD 1005

The following User guideline is for professionals who use: **Ultracur3D® DMD 1005**

The safety data given in this publication is for information purposes only and does not constitute a legally binding Material Safety Data Sheet (MSDS). The relevant MSDS can be obtained upon request from your supplier or you may contact BASF directly at sales@basf-3dps.com.

For more information, please refer to the country specific MSDS for advice.

Manufacturer

BASF 3D Printing Solutions GmbH

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<http://www.forward-am.com/>

Storage Conditions and Disposal Considerations

Keep container tightly closed in a room temperature, well-ventilated place. Keep container dry. If Material is not being used fill it back through a filter in the corresponding material bottle. The filter prevents to fill cured pieces or failed prints back into the bottle. Ultracur3D® DMD 1005 must be disposed of or incinerated in accordance with local regulations.

For more information, please refer to the country specific MSDS for advice.

Delivery units

Ultracur3D® DMD 1005 is available in the following packaging sizes: 5 kg, 10 kg and possible larger volume packaging are also available upon request.

Intended Use

Ultracur3D® DMD 1005 is a technical material based on (meth-)acrylate resin for suggested Photocentric LCD systems. Working wavelength: 460 nm. Attached a list of suggested 3D printer and Printing parameters. For more information contact BASF directly at sales@basf-3dps.com.

The data contained in this publication are based on our current knowledge and experience. They do not constitute an agreed contractual quality of the product and, in view of the many factors that may affect processing and application of our products, do not relieve processors from carrying out their own investigations and tests. The agreed contractual quality of the product at the time of transfer of risk is based solely on the data in the specification data sheet. Any descriptions, drawings, photographs, data, proportions, weights, etc. given in this publication may change without prior information. The customer and/or user is responsible to consider and respect all hazard and safety issues according to the MSDS of Ultracur3D® DMD 1005 and take, implement and/or install adequate measures and precautions to avoid any personal injuries, property damages and/or environmental pollution. Therefore, BASF3D Printing Solutions GmbH shall not be liable for any personal injury, property damages and/or environmental emissions arising out of or related to the testing, handling or usage, storage and possession of Ultracur3D® DMD 1005. It is the sole responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed (02/2020)

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Example of Suitable 3D-Printers and Settings

PRINTER	PHOTOCENTRIC MAGNA
Wavelength	460 nm
Curing time	5.5 sec.
Voxel depth	100 µm

Detailed printing parameter can be found on **Photocentric studio**

Printing Process



The material should be processed at room temperature. Before usage the material should be shaken well. Pour it slowly in the vat and wait a couple minutes, until smooth, bubble-free surface is obtained before starting the print job.

As the suitable 3D printer example and setting parameter stated above are only for general guidance purpose, user can get the latest settings via Photocentric studio. Please refer to Instruction of Use or User Guide of the employed 3D-Printer for the printer settings and handling.

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Cleaning and Post curing process

Cleaning

Ultracur3D® DMD 1005 can be cleaned with Ultracur3D® Cleaner & tap water, please refer to the following cleaning procedure.

Cleaning with Resin cleaner & water

Step 1: Place the platform in Ultrasonic bath Wash 99 filled with Resin cleaner. Run the bath for 2 intervals of 8 minutes each.

Step 2: Rinse the parts with water for a couple of minutes.

Step 3: Do not remove the parts from the platform. Place the parts in Cure L / Cure L 2 for post curing.

Ultracur3D® DMD 1005 parts require adequate post curing to achieve the optimized final mechanical properties.

Example of Post curing procedure

Post-curing unit	Photocentric Cure L / Cure L 2
Amount of cycles	1
Duration of one curing cycle	120 minutes
Temperature	65 °C

Post curing

Finishing Process

In order to remove the parts from the platform with ease, quench the parts with cold water as soon as the post curing cycle has been finished in Cure L / Cure L 2. Once the parts are quenched, it will be very easy to snap them off the platform.

These proceedings are only general guidelines, the optimal printing settings as well as curing time must be defined by the user himself. The post-curing might differ by using different 3D-Printers and different post-curing units may require different settings.

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