User Guideline
Ultracur3D® EPD 4006

The following User guideline is for professionals who use: **Ultracur3D® EPD 4006**.

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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GERMANY

E-mail address: sales@basf-3dps.com

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® EPD 4006 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® EPD 4006 is available in the following packaging sizes: 5 kg, 10 kg and possible larger volume packaging are also available upon request.

Intended Use

Ultracur3D® EPD 4006 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.*

Example of Suitable 3D-Printers and Settings

PRINTER	PHOTOCENTRIC MAGNA
Wavelength	460 nm
Curing time	8 s
Voxel depth	100 µm

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

Printing Process

Preparation of Resin

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.

Removing parts

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.

BASF 3D Printing Solutions GmbH ◆ **sales@basf-3dps.com** ◆ **www.forward-am.com**

Photocentric

UK - Cambridge House, Oxney Road, Peterborough, PE1 5YW. +44 1733 349937. info@photocentric.co.uk
USA - 2205 West Parkside Lane, Phoenix, 85027, AZ. (623) 581-3220. info@photocentricusa.com

www.photocentricgroup.com

Cleaning and Post curing process

Cleaning

Ultracur3D® EPD 4006 can be cleaned with Ultracur3D® Cleaner & tap water, please refer to the following cleaning procedure.

Cleaning with Resin cleaner & water

Step 1: Do not remove the parts from the platform. Place the platform in Ultrasonic bath Wash 99/Air Wash L filled with Resin cleaner. Run the bath for 2 intervals of 8 minutes each.

Step 2: Do not remove the parts from the platform. Place the platform in Ultrasonic bath Wash 99/Air Wash L filled with Water. Run the bath for 8 minutes.

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

Ultracur3D® EPD 4006 parts require adequate post curing to achieve the optimized final mechanical properties.

Post curing

Example of Post curing procedure

Post-curing unit	Photocentric Cure L / Cure L 2	Dymax ECE 2000 flood
Amount of cycles	1	2
Duration of one curing cycle	540 minutes	10 minutes
Temperature	65 °C	Not applicable

Finishing Process

Remove the parts from the platform once the post curing cycles have been finished. Once you have removed the parts from the platform, support structures can be removed carefully, and the surface can be smoothened if necessary. Now the parts are ready to use.

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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