BLUE CAST ORIGINAL FOR FORMLABS 3DP

PRODUCT FEATURES

Minimal residue after burnout process (0.003%)

Low-exhaust emission during the burnout process

Virtually no expansion of resin during burnout process

Extreme castability

Ultra-fast burnout cycle available (1 hour)

Compatible with all investments (Tested with Kerr® Satincast, R&R PlastiCast, Optima Prestige, Omega Plus)

No UV post-curing necessary

Washable with 90%/99% denatured alcohol (IPA) or ethyl alcohol 90%/99%

Less irritation, free of toxic substances

Low deformation post-printing

Direct casting of models with no need for lacquer or Teflon® (PTFE) spray

Exceptional weldability with wax sprues

Exceptional hand workability (UV post-curing needed to harden big models)

High definition of details and consistency of surfaces

Perfect for Chevalier-style jewelry and micro-signet designs

Two years of testing and development, resulting in a superior product to currently available resins for the jewelry, dentistry, and other casting

Created for professional use only. Keep out of reach of children. Do not ingest or allow contact with eyes, mouth, and other membranes. Always use proper safety protection while handling any resin materials.

Although BlueCast resin contains no toxic or irritating substances, care should always be exercised when working with chemicals. For more information, please refer to the MSDS from the manufacturer.

QUICK START GUIDE

Use a new resin tank, or one that has been thoroughly cleaned.

Before use, shake the resin container for 60 seconds. If the resin has been sitting in the tank, use the putty knife to ensure it's thoroughly mixed.

Preheat the resin to 40°C (104°F) for best results with printing details.

In PreForm, choose the Castable v2 setting, or Gray v2 profile for more detailed pieces. Upload the file to the printer (The choice of profile depends also on the functionality and on the year of manufacture of the machine).

On the Form 2, use the Settings menu to choose Open Mode. The wiper and heater will be disabled.

Fill the tank to the maximum fill line, or to the appropriate amount needed.

POST-PRINTING CLEANUP

Clean the prints by pouring 91%/99% denatured alcohol (IPA) or ethyl alcohol 90%/99% over the prints instead of the usual cleaning process of dipping.

Dry and clean the pieces using a can of compressed air for best results.

UV post-curing is not necessary, unless the pieces require hand-finishing.

Invest the pieces as usual and burn out.

Follow the manufacturer's burnout cycle for your chosen investment.

FAST BURNOUT

The ideal temperature for burnout of BlueCast resin is 850°C or 1560°F.

For fast burnout it is necessary to use a investment able to work over 850°C . We recommend the use of high quality investment.

For a fast burnout schedule, let the flask/investment stand for at least 60-90 minutes, preheat the kiln to 850-860°C (1560-1580°F), then insert the cylinder and keep the temperature constant for 60-90 minutes. Reduce the temperature to your casting temperature and hold for 60 minutes before casting as usual.

During initial burnout, turn the flask on its side, then turn with the button facing up for the rest of the cycle to ensure good air flow.

IMPORTANT TIPS

Check resin tank before EVERY print. BlueCat is not liable for any damage caused

to the printer by cracking or leakage of the resin tank.

For optimum results, do not crowd the build platform. Six or seven pieces at a time works well.

We recommend printing large rings horizontally.

DO NOT store the resin for more than 24 hours in the resin tank. BlueCast is highly hygroscopic, and will absorb moisture from the air. It is advisable to filter the resin after each print cycle and store it in its original container for optimal preservation and to prevent alteration of its characteristics.

Do not store the resin in clear containers, as it is highly light-sensitive and will damage the resin.

HOW TO FIX PLATFORM AHESION IUSSE

- check Z offset and if necessary let the platform push more on PDMS (-0.2, –0.3)

- use sand paper (200 400 grain) to abrade alu plate to promote adhesion

- use corners of table instead central position

- use bigger base into 3D model

- use a drop of uv glue well massaged on plate onto printing position (Loca UV glue, Ebay) (pay attention that will be very hard to remove part from plat.

- try our special primer: Primer Cat

If you have again problem....please advise us.

BLUE CAST ORIGINAL LS 23 LCD/DLP

Blue Cast LCD/DLP resin is fully compatible with all LCD printers like Wanaho D7, Micromake 2017 L2, EAST Micromake L2, X-CUBE LCD, Vodainfo Tech. LCD, Xayav Model V, etc (405nm _ min. 30 watt LED power) and with all DLP machines with HD LED Projector (385 – 405 nm) like 3DS Project 1200, Miicraft, Kudo Titan 2, Moonray, Asiga, etc

PRODUCT FEATURES

Wery low shrinkage and High Accuracy

Minimal residue after burnout process (0.005%)

Low-exhaust emission during the burnout process

Virtually no expansion of resin during burnout process

Compatible with all investments (Tested with Kerr® Satincast, R&R PlastiCast, Optima Prestige, Omega Plus). Very good castability.

Washable with 90%/99% denatured alcohol (IPA) or ethyl alcohol 90%/99%

Less irritation, free of toxic substances

Very low deformation during post-printing

Direct casting of models with no need for lacquer or Teflon® (PTFE) spray

Exceptional weldability with wax sprues - Exceptional hand workability

High definition of details and consistency of surfaces

Remarkable definition of micro-incisions and micro-reliefs, including the ability to create watermarks with a minimum thickness of 0.2mm

Suitable for all kind of jewel design, micropavè, engravings, filigree, Engagement ring, chevalier etc

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Although BlueCast resin contains no toxic or irritating substances, care should always be exercised when working with chemicals. For more information, please refer to the MSDS from the manufacturer.

QUICK START GUIDE

Use a resin tank provided with high quality FEP (127 HD, 150 …….)

Preheat the resin to 40°C (104°F) for best results with printing details.

Before use, shake the resin container for 60 seconds. If the resin has been sitting in the tank, use the putty knife to ensure it's thoroughly mixed.

On the LCD printers like Wanaho D7 (30 / 40 watt) start from this settings:

0,05 mm z Resolution

5 bottom layers - exp time 60 seconds

Other layers - from 10 to 14 seconds (depend on geometry)

Z lift - 5mm

Z lift speed -40 mm/min

Antialiasing - Off

0,03 mm z Resolution

5 bottom layers - exp time 60 seconds

Other layers - from 7 to 10 seconds (depend on geometry)

Z lift - 5mm

Z lift speed - 40 mm/min

Antialiasing – Off

For DLP machine, start using the standard castable resin exposure time reduced of 20%

POST-PRINTING CLEANUP

Clean the prints by pouring 91%/99% denatured alcohol (IPA) or ethyl alcohol 90%/99% over the prints instead of the usual cleaning process of dipping.

Dry and clean the pieces using a can of compressed air for best results.

Invest the pieces as usual and burn out.

Follow the manufacturer's burnout cycle for your chosen investment.

IMPORTANT TIPS

Check resin tank before EVERY print. BlueCat is not liable for any damage caused to the printer by cracking or leakage of the resin tank / fep.

We recommend printing large rings horizontally.

DO NOT store the resin for more than 24 hours in the resin tank. BlueCast is highly hygroscopic, and will absorb moisture from the air. It is advisable to filter the resin after each print cycle and store it in its original container for optimal preservation and to prevent alteration of its characteristics.

Do not store the resin in clear containers, as it is highly light-sensitive and will damage the resin.

HOW TO FIX PLATFORM AHESION IUSSE

- check Z offset and if necessary do the calibration

- use sand paper (200 400 grain) to abrade alu plate to promote adhesion

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- use bigger base into 3D model

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- try our special primer: Primer Cat

If you have again problem....please advise us.

PRINTING SETTINGS

- Phrozen Shuffle

BURN IN LAYER
NUMBERS OF LAYERS: 5
LAYER THICKNESS: 50u
CURE TIME: 70 SEC
WAIT BEFORE PRINT: 5 SEC
WAIT AFTER PRINT: 0.5 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 50u
CURE TIME: 14 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

MOTOR SPEED 120 u/SEC
Heigh of slow section 1mm
Speed of slow section 30u/SEC

- Phrozen Shuffle 2019

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 5n
EXPOSURE TIME – 11s
BOTTOM EXPOSURE TIME – 60s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 11s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 80 mm/min
RETRACT SPEED -100 mm/min

- Phrozen Shuffle 4K

BURN IN LAYER
NUMBERS OF LAYERS: 5
LAYER THICKNESS: 30u
CURE TIME: 60 SEC
WAIT BEFORE PRINT: 5 SEC
WAIT AFTER PRINT: 0.5 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 30u
CURE TIME: 11 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

BOTTOM LAYER MOTOR SPEED 50 u/SEC
MOTOR SPEED 100 u/SEC

- Phrozen Sonic – Sonic / Mini

BURN IN LAYER
NUMBERS OF LAYERS: 6
LAYER THICKNESS: 50u
CURE TIME: 45 SEC
WAIT BEFORE PRINT: 5 SEC
WAIT AFTER PRINT: 0.5 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 50u
CURE TIME: 4.2 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

BOTTOM LAYER MOTOR SPEED 50 u/SEC
MOTOR SPEED 80 u/SEC

- Phrozen XL

BURN IN LAYER
NUMBERS OF LAYERS: 7
LAYER THICKNESS: 100u
CURE TIME: 90 SEC
WAIT BEFORE PRINT: 6 SEC
WAIT AFTER PRINT: 0.5 SEC
LIFT AFTER PRINT: 7 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 50u
CURE TIME: 11 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

MOTOR SPEED 100 u/SEC
Heigh of slow section 1mm
Speed of slow section 30u/SEC

- Phrozen Sonic XL 4k

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 9n
EXPOSURE TIME – 4.5s
BOTTOM EXPOSURE TIME – 45s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 11s
BOTTOM LIFT DISTANCE – 9mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 80 mm/min
RETRACT SPEED -80 mm/min

- Phrozen Sonic Mini 4k / Phrozen Sonic 4k

BURN IN LAYER
NUMBERS OF LAYERS: 8
LAYER THICKNESS: 30u
CURE TIME: 50 SEC
WAIT BEFORE PRINT: 5 SEC
WAIT AFTER PRINT: 0.5 SEC

LIFT AFTER PRINT: 6 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 30u
CURE TIME: 4.2 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

BOTTOM LAYER MOTOR SPEED 30 u/SEC
MOTOR SPEED 80 u/SEC

On Chitubox (light off delay 7 – Bottom light off delay 12)

- **ANYCUBIC PHOTON (start the Chitubox settings using a standard printer profile)**

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 16s
BOTTOM EXPOSURE TIME – 110s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 11s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 50 mm/min
RETRACT SPEED -100 mm/min

Primer needed

- **ANYCUBIC PHOTON S**

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 10s
BOTTOM EXPOSURE TIME – 70s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 11s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 80 mm/min
RETRACT SPEED -100 mm/min

Primer needed

- **ANYCUBIC PHOTON MONO X**

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 10n
EXPOSURE TIME – 2.6s
BOTTOM EXPOSURE TIME – 50s
LIGHT OFF DELAY – 7s
BOTTOM LIGHT OFF DELAY – 14s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 100 mm/min
RETRACT SPEED -100 mm/min

Primer suggested

- ANYCUBIC PHOTON MONO

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 10n
EXPOSURE TIME – 3.4s
BOTTOM EXPOSURE TIME – 60s
LIGHT OFF DELAY – 7s
BOTTOM LIGHT OFF DELAY – 14s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 80 mm/min
RETRACT SPEED - 80 mm/min

Primer suggested

- ANYCUBIC PHOTON MONO SE

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 10n
EXPOSURE TIME – 3.2s
BOTTOM EXPOSURE TIME – 60s
LIGHT OFF DELAY – 7s
BOTTOM LIGHT OFF DELAY – 14s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 110 mm/min
RETRACT SPEED 110 mm/min

Primer suggested

- ELEGOO MARS

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 14s
BOTTOM EXPOSURE TIME – 100s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 11s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE -5mm
BOTTOM LIFT SPEED – 50 mm/min
LIFTING SPEED – 50 mm/min
RETRACT SPEED -100 mm/min

Primer needed

- ELEGOO MARS PRO

LAYER EIGHT – 0.04 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 12s
BOTTOM EXPOSURE TIME – 90s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 11s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE – 5mm
BOTTOM LIFT SPEED – 50mm/min
LIFTING SPEED - 50mm/min
RETRACT SPEED – 100mm/min

- ELEGOO MARS PRO 2

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 4.8s

BOTTOM EXPOSURE TIME – 60s
LIGHT OFF DELAY – 8s
BOTTOM LIGHT OFF DELAY – 10s
BOTTOM LIFT DISTANCE – 5mm
LIFTING DISTANCE – 5mm
BOTTOM LIFT SPEED – 50mm/min
LIFTING SPEED - 50mm/min
RETRACT SPEED – 100mm/min

- **SparkMaker FHD**

BURN IN LAYER
NUMBERS OF LAYERS: 8
LAYER THICKNESS: 50u
CURE TIME: 100 SEC
WAIT BEFORE PRINT: 5 SEC
WAIT AFTER PRINT: 0.5 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 50u
CURE TIME: 17 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

MOTOR SPEED 100 u/SEC

- **Zortrax Inkspire**

LAYER THICKNESS 50
LAYER EXPOSURE: 11 SEC
BOTTOM LAYER EXPOSURE: 50 SEC
EXPOSURE OFF TIME: 1.5 SEC
BOTTOM LAYERS: 5
ADDITTIONAL SUPPORTS EXPOSURE: 1 SEC
Z LIFT DISTANCE 5
PLATFORM SPEED 90

MOTOR SPEED 90mm/M