

BLUE CAST _ Dental Gray / Dental Beige

For all LCD 3d printers

PRODUCT FEATURES

HIGH ACCURACY AND DIMENTIONAL STABILITY

SUITABLE FOR VACUUM FORMING (Thermoforming, Vacuum Forming and Pressure Forming)

DIES and DENTAL PROTOTYPES

MATTE FINISHING FOR BETTER DETAILS

Dental Gray / Dental Beige resins have matte finishing with a gypsum-like texture. The new resins are very easy to scan without use of coating spray. The shrinkage is negligible thanks to the inside nano ceramic and high level of detail suitable for accurate modeling of teeth and gums. The resins available in gray and beige colors has been developed according to the requests of a dental laboratories. Dental Gray / Beige are the best resins for all dental applications: is not meant for intraoral use.

The chemical formulation don't contain dangerous monomers and has not been classified as carcinogenic under EU legislation. The resin is odorless and it is safe to print when used in accordance with our MSDS instructions.



QUICK START GUIDE FOR LCD PRINTERS

BlueCast Dental Gray / Beige LCD resins are fully compatible with all LCD printers like Phrozen Shuffle, XL, Anycubic Photon, Wahnaho D7, D8, Micromake 2017 L2, EAST Micromake L2, X-CUBE LCD, Vodainfo Tech. LCD, Xayav Model V, etc (405nm).

For best results we suggest to use a resin tank provided with high quality FEP (FEP 100 OR 127 HD are suggested).

In case of particular climatic conditions (such as in case of room temperature inferior to 18°C) it is suggested to preheat the resin. If the resin has been sitting in the tank, use the putty knife to ensure it is thoroughly mixed.

It is suggested to filter the resin before each use, in order to avoid any damage to LCD screen.

The platform adhesion is perfect and permit to print multiples files in the same time.

HOW TO PREPARE THE PRINTING FILE

With BlueCast Dental Gray / Dental Beige you can easy arranging the models directly on the platform: you will save resin and time.

It is also possible to print allowed models. When you do this remember to make the drains holes to permit the resin exit and avoid the suction effect.

For the dies and allowed models supports is suggested to use a medium preset: pilar size 1mm (diameter) / tip size 0.6mm (diameter).

For DIES we suggest to set the gap/tolerance at 30u



SUGGESTED PRINTING SETTINGS

Pay attention, the suggested settings can slightly change according to the machines maintenance conditions, the life time and fep used

- **Phrozen Shuffle**

BURN IN LAYER
NUMBERS OF LAYERS: 5
LAYER THICKNESS: 50u
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: 50u
CURE TIME: 13/15 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 4 mm
WAIT AFRER LIFT: 0.1 SEC

MOTOR SPEED 150 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 – 9s
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 4K**

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 9s
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 XL**

BURN IN LAYER
NUMBERS OF LAYERS: 7
LAYER THICKNESS: 75u
CURE TIME: 60 SEC
WAIT BEFORE PRINT: 6 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: 8 SEC
WAIT BEFORE PRINT: 1.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 4 mm
WAIT AFRER LIFT: 0.1 SEC

MOTOR SPEED 180 u/SEC

- **Phrozen Sonic – Sonic / Mini**

BURN IN LAYER
NUMBERS OF LAYERS: 5
LAYER THICKNESS: 50u
CURE TIME: 35 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: 2.7 SEC
WAIT BEFORE PRINT: 0.5 SEC
WAIT AFTER PRINT: 0.1 SEC
LIFT AFTER PRINT: 5 mm
WAIT AFRER LIFT: 0.1 SEC

MOTOR SPEED 100 u/SEC

- **Phrozen Sonic XL 4k**

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 9n
EXPOSURE TIME – 4 s
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: 5 mm
WAIT AFRER LIFT: 0.1 SEC

NORMAL LAYER
LAYER THICKNESS: 30u
CURE TIME: 4.3 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 6 – Bottom light off delay 11)

- **Phrozen Sonic Mighty 4k**

BURN IN LAYER
NUMBERS OF LAYERS: 8
LAYER THICKNESS: 50u
CURE TIME: 50 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: 5.5 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 11)

- **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 – 9s
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 – 3s
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 – 90 mm/min
RETRACT SPEED -90 mm/min

Primer suggested

- **ANYCUBIC PHOTON MONO**

LAYER EIGHT – 0.03 mm
BOTTOM LAYER COUNT – 10n
EXPOSURE TIME – 3.6s
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 – 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 – 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

- **ELEGOO MARS**

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 12s
BOTTOM EXPOSURE TIME – 90s
LIGHT OFF DELAY – 9s
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 suggested

- **ELEGOO MARS PRO**

LAYER EIGHT – 0.04 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 9s

BOTTOM EXPOSURE TIME – 60s
LIGHT OFF DELAY – 9s
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

Primer suggested

- **ELEGOO MARS PRO 2**

LAYER EIGHT – 0.05 mm
BOTTOM LAYER COUNT – 7n
EXPOSURE TIME – 3.9s
BOTTOM EXPOSURE TIME – 50s
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

- **ZORTRAX INKSPIRE**

EXTRNAL MATERIAL – ADVANCED SETTINGS
LAYER THICKNESS: 0.05 mm
LAYER EXPOSURE TIME: 7.5 SEC
BOTTOM LAYER EXPOSURE TIME: 48 SEC
EXPOSURE OFF TIME: 2 SEC
BOTTOM LAYERS: 4
ADDITIONAL SUPPORTS EXPOSURE TIME: 1.5 sec
Z LIFT DISTANCE: 5 mm
PLATFORM SPPED (lower/lift): 75

- **SOLUS PRO**

LAYER THICKNESS: 0.03 mm
LAYER EXPOSURE TIME: 2.0 SEC
BOTTOM LAYER EXPOSURE TIME: 30SEC
BOTTOM LAYERS: 6
Z LIFT DISTANCE: 4 mm
PLATFORM SPPED: 100



POST-PRINTING CLEANUP

Clean the prints by pouring 91%/99% denatured alcohol (IPA) or ethyl alcohol 90%/99% (approximately 3 minute).

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

UV Cure the models for 10 min with a 40 Watt lamp – 3 min with a 100 Watt lamp