The parameter of Eryone Water Washable Standard Resin

Created in 2020

Basic information

Color:

Black,white,grey,clear,cyan,magenta,yellow.

Advantages:

- High precision
- Little odor
- Smooth surface
- High molding rate
- High hardness
- Fast curing
- Low consistency
- Easy cleaning

Printing parameters:

Exposure time:4-10s (color screen), 2-3s (monochrome screen)

Bottom exposure time:50-120s (color screen), 20-40s (monochrome screen)

Lifting distance:5-8mm

Lifting speed:100-200mm/min

Technical specification

Viscosity	100-350MPa • s（temp25℃）	Absorption band	385nm-410nm
Density	1.05-1.25g/cm^3（temp25℃）	The most strongly（KGF）	139.52±10%
Tensile strength（MPA）	32.89±10%	Deformation of the maximum force point（mm）	8.457±10%
Yield point	6.631±10%	Elongation at break（%）	14.967±10%

elongation(%)			
Maximum flexural strength (MPa)	34.748±10%	Flexural modulus of elasticity (MPa)	618.521±10%
Shore hardness	85-88D	Impact strength （kj/m^2）	7.8045±10%

Printing parameters

Reference of water washable standard resin printing parameters（25℃）							
Printer	Layer height (mm)	Exposure time (s)	Bottom exposure time (s)	Bottom layer count	Lifting distance (mm)	Lifting speed (mm/min)	type
AnyCubic Photon	0.05	8	100	5	5	100	Color screen printer
AnyCubic Photon-S	0.05	8	100	5	5	100	
Longer 3D Orange10	0.05	10	100	6	5	150	
Longer 3D Orange30	0.05	10	100	6	5	150	
CREALITY LD-002R	0.05	8	80	10	5	100	
Nova3D Bene4	0.05	5	50	5	5	150	
Nova3D Elfin2	0.05	10	100	6	5	150	
ELEGOO MARS	0.05	15	80	5	5	100	
ELEGOO MARS PRO	0.05	7	60	5	5	100	
Voxelab Polaris	0.05	10	90	6	5	100	
Voxelab Proxima	0.05	3	30	6	5	100	Mono chrome screen
Phrozen Transform	0.05	10	80	20	8	100	
Phrozen Sonic Mini	0.05	2.5	25	6	5	100	
CREALITY LD-002H	0.05	3	25	7	5	100	
AnyCubic Photon Mono SE	0.05	2.5	35	6	6	200	
AnyCubic Photon Mono	0.05	2.5	30	6	6	200	
AnyCubic Photon Mono X	0.05	4.5	45	6	8	200	

ELEGOO SATURN	0.05	3	30	5	7	100	
ELEGOO MARS 2	0.05	3	30	5	5	100	
ELEGOO MARS 2 PRO	0.05	2.5	25	5	5	100	
Nova3D Elfin2 Mono SE	0.05	3	30	6	5	150	

Cleaning and post-curing

Cleaning:

1. For Regular resin:

Step1, Spray with Isopropanol, then blow resin away with cool wind.

Step2, Prepare two containers with Isopropanol (alcohol> 95%), and place the jobs into the first container and slightly shake it, then soak in the second container for about 1 minute (dental resin should not exceed 30 seconds).

Step3, Flush with water before dry it, do make it sure it 's 100% dried as residuary alcohol may cause white spot or crack on jobs.

2. Water washable resin:

Cleaning with flush water and brush it gently with a soft brush, and then drying it with cold air.

Post-curing:

1. The curing time is proportional to the volume of the work piece and inversely proportional to the optical power of the curing chamber. Example: 100 watt LED curing box, jewelry jobs is recommended to be cured with soaking in water for 20-30 minutes.

2. Work-pieces should be in the water during post-curing to prevent deformation especially for dental and jewelry.

3. Don't forget to use cool air to dry it after post-curing.

FAQ

1.Q: Does the wastewater generated after resin washing can be directly discharged into the sewer?

A: Not recommended, because the test results showed that the water solution indexes after washing resin were lower than Shenzhen (China) wastewater discharge standard. However, we recommend you cure the resin in the aqueous solution and filtering out the residue before discharging.

2.Q: The surface of the print is whitening after the secondary curing, why?

A: The surface of resin is not cleaned thoroughly.

3.Q: How do you deal with the white spots left by the model surface support?

A: Remove white spots by applying a little skin-care product to the print surface.

4.Q: The model is cracked, why?

A:①the model is hollow inside, and it is not cleaned completely. There is residual resin or a mixture of resin and alcohol, and the inner and outer shrinkage of the model is inconsistent.

②Expansion Cracking: the inside is hollow, and the air-drying is not complete after cleaning. So there is residual water and the resin absorbs water, expands and cracks.

5.Q: The bottom plate is warped during printing. Why?

A: The curing time of the bottom layer is not enough, resulting in insufficient adhesion between the model and the printing platform.

6.Q: Transparent resin is yellowing. Why?

A: It is normal for rigid transparent resin to slightly yellow, which can be reduced by reducing the exposure time or post-curing time.

7.Q: Prints are easy to break, why?

A: Rigid resin is relatively brittle and cannot be used as a functional resin. The printed model is generally only used for viewing. For practical resins, ABS-like resins with higher hardness, strength and toughness are recommended.

8.Q: If the resin is not used for a long time, delamination will occur. Why?

A: That is normal. The resin formula contains color paste, which will precipitate and separate after standing for some time. After you stir the resin with a glass rod, the resin can return to a normal state. If the color paste still precipitates after stirring, it indicates that the resin can no longer be used.

9.Q: The thinner part of the model is soft and collapsed. Why?

A: The resin absorbs too much water, which can be improved by drying it quickly after cleaning.

Warning

1. This material should not be in contact with eyes, skin or clothing, and should not be tasted or eaten.
2. If you accidentally touch your eyes or skin, immediately rinse with water for about 20

minutes and seek medical advice if necessary.

3. Please pay attention to air circulation and take protective measures when using. Wash thoroughly after handling.

4. The product is in a liquid state with a slight odor. Wear a mask and gloves.

5. The product should be stored in a sealed container. After use, it should be filtered and keep back in bottle on time and placed in a dry and well ventilated place. It should not be exposed to sunlight.

6. Shake well before use, and leave it for 30 minutes to eliminate air bubbles that generated during the shaking process.

7. The ambient temperature is recommended to be controlled at 25-30 degrees Celsius, and during the printing should avoid any lights.

8. Dispose of waste in accordance with local environmental regulations.

9. Storage environment: Store in cool and dry place, and avoid sunlight, recommended temperature at 25-30 degrees Celsius.