SHENZHEN ELEGOO TECHNOLOGY CO.，LTD

Technical Data Sheet

Product Details

Product name：Standard Photopolymer Resin

Model number： PJHC-D series

Applicable industrial： Suitable for dental industry, teaching and research, toy design, handicraft design, industrial parts design, etc.

Manufacturer：Shenzhen Elegoo Technology Co.,Ltd.

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Product Characteristics

Short curing time, no deformation in forming process, smooth surface of finished product, high precision.

After curing, it has high hardness and certain toughness.

Product Technical Parameters before Curing

Viscosity: 200~400mPa • s (NDJ-8S rotary rheometer（25℃）)

Density: 1.05~1.25g/cm^3 (densitometer(25℃))

Principle of 3D Printing

UV curing additive manufacturing resin curing materials cure by UV high resolution projector layer by layer UV curing additive manufacturing resin to create a 3D printed piece. Molding process: The LCD/DLP printers contain a liquid tank that can hold the resin and resin storage, the LCD/DLP imaging system is placed below the tank and its imaging surface is located at the

bottom of the tank. By energy and graphic control, a thin layer of resin (50μm/25μm) of a certain thickness and shape can be cured each time (this layer of resin is exactly the same as the section obtained from the previous section). A lifting mechanism is set above the liquid tank. After each section exposure, it is lifted to a certain height (the height is consistent with the thickness of the layer). The current cured solid resin is separated from the bottom of the liquid tank and bonded to the pull-plate or the resin layer formed last time. In this way, through layer by layer exposure and lifting to generate three-dimensional entities, the final result is the washed resin cured piece after curing.

Recommended Print Parameters

Recommended printing time: Bottom exposure time 25~35s, layer exposure time 2.5~3.5s. (based on the printer with intensity of 3500-4500μw/㎠)

Bottom Lift Distance: 6mm

Lifting Distance: 6mm

Bottom Lift Speed: 60mm/min

Lifting Speed: 80mm/min

Retract Speed: 150mm/min

Wavelength: 385~410nm

Molding Test Requirements and Technical Parameters after Molding

Molding Test Environment and Standard:

①Temperature: 23±2℃

②Relative humidity: 50%RH±5%RH

③The standard of the test piece: ASTM

④Post curing condition: The test piece was placed in water under 405nm ultraviolet radiation of 200mw/cm² for one minute.

Technical Parameters after Molding:

1、Maximum force(KGF):143.3±10%

2、Tensile strength(MPa): 33.78±10%

3、Deformation of maximum point of force(mm): 4.93±10%

4、Elongation at yield point(%): 4.55±10%

5、Elongation at break(%): 8.77±10%

6、Maximum bending strength(MPa): 30.11±10%

7、Flexural modulus(MPa): 708.59±10%

8、Hardness(Shore D)：80~88

9、Impact strength(j/m): 24.20±10%

10、Tensile modulus：520.96±10%

Warning

1. This product is disposable and cannot be reused.
2. This product should not be in contact with eyes, skin or clothing, and should not be tasted or eaten. Use only in good ventilation, please pay attention to air circulation, and take protective measures. Clean thoroughly after operation.
3. This product is liquid and has a slight odor. Please wear a mask when using it to avoid inhalation of aerosol and infection.
4. This product should be stored in an airtight container, sealed immediately after use, and placed in a dry and well-ventilated place without exposure to sunlight.
5. In case of accidental inhalation of this product, leave the scene in time, quickly transfer to a place with fresh air, in case of adverse reactions, go to the hospital for treatment in time.
6. If swallowed this product accidentally, do not induce vomiting, keep a state of rest, timely sent to the hospital treatment.
7. In case of contact with skin, wash skin thoroughly with soapy water or seek medical advice.
8. In case of contact with eyes, open eyelids immediately, rinse with soapy water for about 20 minutes and seek medical advice immediately.
9. Waste water/waste shall be disposed of in accordance with local environmental regulations.

Storage:

Please seal the product and store it in a dry, well-ventilated room with no corrosive gas, keep away from heat source, keep away from moisture and avoid sun exposure. Shelf life 2 year. (The product is best stored at 25~30℃)