TJ 2800 Acrylic Resin

一、Introduction

Acrylic resin agent is a resin glue composed of powder and liquid, that is, composed of acrylic powder and liquid mounting agent. The acrylic powder is white powder, the mounting agent is colorless to light green transparent liquid. After mixing the mounting agent and acrylic powder for 8-10 minutes at room temperature (20-25°C), it can be cured into a transparent or translucent hard material, and the material can be ground and polished. It has the advantages of low heat release, small thermal shrinkage, good weather fastness and good wear resistance. It is suitable for permanent specimens and micro slicing mounting material for circuit board and metalworking industry.

二、Features

1. Fast mounting, smooth and translucent；
2. Low viscosity, excellent flow properties；
3. Excellent permeability to small pores and depressions；
4. Good support for the slices after mounting;
5. Sufficient hardness and toughness after mounting;
6. Suit with all currently known soft or hard plastic molds;
7. Low exotherm, peak temperature <80°C (12g, room temperature 20-22°C).

三、Safety Precautions

1. Avoid contact with resins, mounting agents and mixed acrylic resins. Wear protective gloves when handling acrylic resin. If you have resin, hardener, or mixed acrylic resin on your skin, remove it as soon as possible. After using acrylic resin, wash thoroughly with soap and warm water. If you spill the acrylic resin mixture on your clothing, replace it right away.

2. Protect eyes from resins, hardeners and mixed acrylic resins.

3. Resin may generate vapors after mixing, avoid inhalation. Mounting experiments should be performed in a well-ventilated environment such as a fume hood.

4. Avoid eating acrylic resin by mistake. Wash hands thoroughly after using acrylic, especially before eating or smoking.

5. Acrylic powder is a combustible substance, and mounting agent is a flammable substance. Neither of them should be placed near fire sources, steam, direct sunlight, or mixed with other organic solvents;

6. Acrylic powder and hardener must be stored separately to avoid chemical reactions.

Warning!

GHS07 GHS08 GHS09

四、Mixing ratio and characteristics

It is important to use the correct and precise mixing ratio, so weight method of measurement are recommended. The mixing ratio of different products is shown in the table below. To obtain a faster mounting speed, the modulation ratio should be controlled at 10:4~10:5. In order to obtain better filling performance and flowability, the ratio of mounting agent can be appropriately increased to more than 10:5, but the mounting time will be extended accordingly.

Mixing ratio (by weight)	(resin powder: mounting agent) *
Mounting time (25℃)	8-10min*
Operation time	2-4min
Peak temperature	85℃*
Hardness	82-83Shore D
Chemical properties	Insoluble in water (after mounting)

Solubility after mounting	Soluble in Trojan's special epoxy resin dissolver
Contractility	≤2%
Edge protection	Better
Transmittance	≥60%

五、Operation method

Preparation In order to improve the adhesion of the mounting material and prevent the foreign matter in the material from seeping out, it is necessary to use alcohol or isopropyl alcohol for ultrasonic cleaning, and then use a dryer or blower to remove the liquid on the surface of the sample.

Mix First weigh the required weight of mounting agent with an electronic scale, and then pour the required proportional weight of acrylic resin powder into the plastic cup. (Do not use wax-lined cups or paper cups). Stir slowly (so that no air bubbles would form) and thoroughly, until the mixture is a smooth paste. The acrylic resin spilled on the table and the acrylic resin left in the cup can be washed off with ethanol.

If there is no weighing equipment, first pour an appropriate amount of mounting agent into a disposable plastic cup, and then add the acrylic powder in small batches. Stir with a stirring rod while adding the powder, pay attention to stirring slowly to prevent air bubbles.

Pouring Slowly pour the mixture into the mold without trapping air around the sample. A stir bar can be used to drain the mixture directly onto the sample.

Mounting Generally, it can be mounted by standing in the air. The mounting time is different at different room temperature. Generally speaking, the higher the temperature, the faster the mounting time. Therefore, the mounting time is different in different seasons. The mounting speed is faster in summer.

The mixture of acrylic resin of this product has good fluidity and low surface tension, which can fill small pores and cracks in some porous samples by itself. Used in conjunction with a pressure cooker (0.3~0.5MPa), it can fill the voids in the sample to a greater extent and reduce the air bubbles inside the sample after mounting, it can also improve the hardness and transparency of the sample.

Sample coverage Covering the mold with a piece of paper/plastic or a mixing cup will prevent moisture ingestion and will prevent the top of the sample from becoming sticky.

Release Acrylic resin generally has good mold release properties, and it can be easily released with force.