



## Water-soluble Photo-curing Adhesive

### Product Description

FR243-3 is a unique water-soluble photo-curing adhesive. Typical photo-curing adhesives develop low water absorption for water resistance. Nevertheless, water-soluble resin requires high water absorption materials. This product is recommended for glass substrate fixation in the glass processing industry. The user can obtain the finished products after the glass is processed and the resin is hydrolyzed.

### Features

1. Cured product exhibits firm and low toughness properties suited for mechanical processing.
2. Cured product exhibits high water absorption which is easy to hydrolyze in the water.
3. This product has passed 30% hydrochloric acid / 10~30 minutes soaking test.
4. This product complies with the 2011/65/EU RoHS regulations.

### Typical Uncured Properties

Chemical Composition	FR243-3 Acrylic resin
Appearance	Liquid
Color	Light yellow
Viscosity* 25°C, S14 100rpm, cps	≤ 2,000
Recommended Application	Dispensing

\*This value is for reference. Please refer to COA for the actual value.

### Typical Curing Properties\*

Recommended Wavelength, nm	310~365
Minimum Light Intensity, mW/cm <sup>2</sup>	> 50
Minimum Light Energy, mJ/cm <sup>2</sup>	1,000~3,000

\*The minimum light energy is for reference. (Different machines lead to different light energy.)

### Direction of Use

1. It should be applied to a clean surface that is free of dirt, grease, or mold. In many cases, a simple solvent wipe is sufficient.
2. For maximum bonding strength, apply adhesive evenly to joint surfaces.
3. Cure time on the actual part will depend on factors such as part geometry, materials to be bonded, bond line thickness, and the efficiency of the UV light. The cure schedule should be confirmed with actual production parts and equipment.
4. Please standardize the UV lamp intensity and illumination. Overexposure will not affect the resin properties, but if there is not enough exposure, the resin properties will change. The resin may have a lower reaction rate and may not pass the environmental test experiments.
5. This product may cause skin irritation to sensitive personnel.

### Typical Cured Properties

Durometer Hardness ASTM D2240-03, Shore D	79
Durometer Hardness ASTM D2240-03, Shore A	98

### Storage and Shelf Life

This product should be stored in a cool and dark place without sunlight or ultraviolet exposure. Replace the lid immediately after use. Keep it without any possibility of light exposure. The shelf life of this product is 6 months when stored at 14~34°C in the original and unopened containers.

### Caution

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product due to long-term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. Removing adhesive from the skin thoroughly with soap and water is important. DO NOT use solvents for cleaning hands. This product has moderate acute toxicity when swallowed. If swallowed, call a physician. Avoid contact with eyes. In case of contact, flush with water for at least 15 minutes and get medical attention immediately. For specific information on this product, consult the Safety Data Sheet.