



Flame-Retardant Moisture Curing Thermal Conductive Adhesive (Tin-free)

Product Description

FS168W65 is moisture-curing modified silicone adhesive for thermal conductivity and flame retardant applications. After this product reacts with moisture in the air, neutral alcohols will be released, which will further cause curing reaction. This resin will not have the stench of deacidified Silicone during reaction. There is no odor-like PU discharged isocyanate (NCO) and the odor discharged by deoxygenation and deacidification. It is safe and good for the process. The bonding strength of this product to plastics is better than Silicone.

Features

1. This product has good thermal conductivity.
2. This product is tin-free compound.
3. This product is used for various substrates bonding.
4. This resin is flexible and can absorb damage energy.
5. This product exhibits stable properties in a wide range of temperature.
6. This product will not volatilize low molecular weight siloxane compounds and will not cause pollution to electronic parts.
7. This resin is one component adhesive, does not need to be mixed, and easy to use.
8. This product has good stability and can be stored at room temperature.
9. This resin will fast cure in the air. It can have surface dryness in a short time.
10. This product complies to the 2011/65/EU RoHS regulations.

Typical Uncured Properties

	FS168W65
Composition	Polyether resin
Appearance	Liquid
Color	White
Viscosity* 25°C, S14 10rpm, cps	85,000~150,000
Specific Gravity	>3.5

*This data is a reference value, and the actual data is based on COA.

Typical Curing Properties

Surface Dry Time, min	7
Thoroughly Cured Time, 25°C, days	7

Direction of Use

1. It should be applied to a clean surface which is free of dirt, grease or mold release. In many cases, a simple solvent wipe is sufficient.
2. Pour or brush this product onto the substrates, it does not recommend to stir to avoid interfusing the air. This product will be cured with the air. The curing properties depend on its thickness, curing temperature and relative humidity.

3. The bottom of the resin might not be cured in thicker application, such as casting, because the bottom of the resin contacts with moisture rarely. It is recommended to prolong the curing time in order to let the moisture spread from the surface to the bottom. It can also cast the resin two times.
Cast the resin to the half height at the first time. When the surface is tacky, cast the resin for the second time.
4. Use this product as soon as possible after opening the original packages. When not using, please replace the lid tightly and store in a cool and dry place.
5. Cure time on the really part will depend upon factors such as part geometry, materials to be bonded, bondline thickness and humidity.
6. Cured product will not be harmful to human when it contacts with the skin.

Typical Cured Properties

Glass Transition Temp, °C	<-40
Hardness (Durometer), Shore A	75
Thermal Conductivity, W/mK	3

Lap Shear Strength (kgf/cm²)

PC vs PC	10
PMMA vs PMMA	8
Al vs Al	10

Storage and Shelf Life

The container should be stored in cool and dark place. This product should be kept without any possibility of moisture exposure. Replace the lid immediately after use. The shelf life of this product is nine months when stored in dark place at 14~34°C in original, unopened containers.

Caution

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. It is important to remove adhesive from skin with soap and water thoroughly. DO NOT use solvents for cleaning hands. This product is of moderate acute toxicity by swallowing. 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 Material Safety Data Sheet.