



## UV1966M

**PRODUCT DESCRIPTION**

UV1966M provides the following product characteristics:

Technology	Acrylate
Appearance	Translucent light blue
Product Benefits	<ul style="list-style-type: none"><li>● Fast cure</li><li>● One component</li><li>● Cures in shadowed areas</li><li>● Easy dispensability without stringing</li><li>● Fluorescent</li></ul>
Cure	Ultraviolet (UV)/ moisture
Application	Assembly
Typical Package Application	Local protection of WLCSP and BGA on circuit board

UV 1966M no flow, UV/moisture cure encapsulant is designed for local circuit board protection. This product is fluorescent when viewed with ultraviolet (black) light.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

Viscosity, Rheometer, Cone and Plate, mPa·s (cP):

@ 1rpm	4,600
@ 10rpm	1,000
Shelf Life @ 5°C, days	180
Flash Point - See SDS	

**TYPICAL CURING PERFORMANCE****Recommended UV Cure**

Light Source and Condition:

Metal halide doped spectrum UV lamp

Light Intensity, mW/cm<sup>2</sup> 100

UV Wavelength, nm 365

Recommended Dose, seconds 20

**Depth of Cure**

Cures at least 0.20 inch under optimum conditions.

UV1966M can be cured by exposure to UV and/or visible light of sufficient intensity. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and light transmittance of the substrate through which the light must pass.

Moisture cures occurs at ambient temperature and humidity.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

**TYPICAL PROPERTIES OF CURED MATERIAL**

DMA and TMA tests conducted on samples UV + 7 days moisture (RT, 50% RH) cured.

Hardness, Tg and modulus increases with additional moisture cure.

CTE decreases with additional moisture cure.

**Physical Properties**

Hardness, Shore D, After initial UV dose of 6.4 J/cm<sup>2</sup>, moisture cure condition of 100%RH @ room temperature:

Initial, after UV Cure	55
+ 1 day moisture cure	62
+ 3 days moisture cure	70
+ 7 days moisture cure	75

Coefficient of Thermal Expansion, TMA, ppm/°C:

Below Tg	78
Above Tg	189
Glass Transition Temperature (Tg) by TMA, °C	56

**GENERAL INFORMATION**

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

**DIRECTIONS FOR USE**

1. Use cotton gloves to handle syringe. Touching the syringe with bare hands may induce thaw voids between the adhesive and inside walls of the syringe.
2. Handle the syringes by the end or, if packaged in bags, by the corner. A warm hand holding a cold syringe can sometimes cause formation of freeze/thaw voids.
3. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
4. Usable shelf life may vary depending on method of application and storage conditions.

**THAWING:**

1. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.
2. Once material has reached room temperature, the adhesive should not be re-refrigerated.
3. Voids can form in the syringes if syringes are repeatedly re-refrigerated.
4. Typical thaw/warm-up times for different package sizes are shown below:

@ 25°C, 30 cc syringes, minutes	45 to 60
@ 25°C, 55 cc syringes, hours	2
5. For optimal performance, a consistent dispense temperature is recommended. This will reduce the effects of a potential temperature change between storage place and cleaning room.

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**Storage**

Store in original, tightly covered containers in clean, dry areas.  
Storage information may be indicated on the product container labeling.

**Optimal Storage : 5 °C**