Technical Data Sheet

POLYMARK UVE-3410-3

Active Alignment Adhesive

Features:

- ***UV Light or Heat Cure***
- ***Very Low CTE and Shrinkage***
- ***Excellent Moisture Resistance***
- ***Active Alignment Applications***

Product Description:

Polymark UVE-3410-3 is a one-component UV light and/or heat-curing adhesive. Polymark UVE-3410-3 has excellent adhesive characteristics to a wide variety of materials making it an excellent choice for bonding various metals, plastics, glass and other common assembly materials. Cured UVE-3410-3 has outstanding moisture and chemical resistance.

Polymark UVE-3410-3 may be rapidly cured in place using a high intensity UV light source near the 365 nm range. The very low CTE and cure shrinkage makes it ideal for fixturing and aligning optical devices

The thermal curing feature will allow curing in shadowed areas not able to be exposed to the curing light. Thermal curing is rapid depending on the time, temperature, type of oven and the part assembly. A typical thermal cure is 120°C for 20 minutes.

Typical Product Handling Properties:

CHARACTERISTIC	***VALUE***
Color	**Tan/Amber**
Density (gram/cc)	**1.85**
Viscosity @25°C (10rpm)	**100,000 cps**
Percent Solids	**100%**
Average Particle Size	**10 um**
Shelf Life @0°C	**6 months**
Working Life @25°C	**72 hours**

Typical Cured Physical Properties

CHARATERISTIC	***VALUE***
Thermal Conductivity	**0.70 W/mK**
Tensile Strength	**18,000 psi**
Shore D Hardness	**>D90**
Glass Transition Temp.	**>150°C**
Coeff. Thermal Expansion	**14 ppm**
Ionic Impurities (Na, K, Cl)	**<10 ppm**

Application:

UVE-3410-3 should be applied and UV light-cured in a temperature-controlled environment. Cold substrates can inhibit the curing speed. Avoid excessively curing the material photochemically or thermally since this can cause internal stresses and poor results.

UVE-3410-3 should be cured using a high-intensity lighting source near 365 nm (including LED powered lamps). Avoid thermal curing in ovens set higher than 130°C.

Shelf Life and Storage:

Polymark UVE-3410-3 has a shelf life of 6 months when stored in sealed containers at 0°C. Higher storage temperatures shorten Polymark UVE-3410-3's shelf life.

Polymark UVE-3410-3 is reactive to ambient light. Care should be taken to protect it from light exposure after removal from original containers. Contact Polymark for recommendations.

Polymark UVE-3410-3 will equilibrate to ambient temperature in approximately two hours for a 30cc syringe and one hour for a 10cc syringe. Thawing of the materials should be done at ambient temperature and should not be accelerated in an oven or warm water.

Handling Safeguards:

All Polymark materials include information on the hazards associated with each particular product. Most epoxy resin systems are skin and eye irritants. More serious health hazards may exist. Consult the Material Safety Data Sheet for further information.

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