



Technical Data Sheet

POLYMARK UVA4003-2 One-Component UV/Heat Curing Adhesive/Sealant

Product Description:

Polymark UVA4003-2 is a one-component, dual cure, UV/heat-curing sealant. It is designed to produce an initial cure with UV light, and then complete cure at elevated temperatures. Polymark UVA4003-2 has excellent adhesive properties to a wide variety of materials making it an excellent choice for bonding and sealing various metals, plastics and other common assembly materials.

Polymark UVA4003-2 may be instantly staked in place using an industrial UV lamp. It can also be heat cured using typical powder-coating IR paint ovens. This makes it very versatile for high volume operations.

Cured UVA4003-2 has good resistance to moisture and excellent resistance to many chemicals. Its low viscosity facilitates dispensing and placement. Polymark UVA4003-2 is non-abrasive to most dispensing equipment.

Typical Product Handling Properties:

<u>CHARACTERISTIC</u>	<u>VALUE</u>
Color	Amber/Clear
Density (gram/cc)	1.08
Viscosity @25°C (10rpm)	2,500 cps
Solids Content	100%
Shelf Life:	
4°C	6 months
25°C	3 months
*Conventional Oven Cure Time (0.5 gram):	
125°C	30 minutes
150°C	5 minutes
*Hot Plate Cure Time (0.5 gram):	
125°C	5 minutes
150°C	<1 minute

*Observed cure times are highly dependant on many factors including heating source and part assembly.

Important Notice to Users: Typical properties are shown in this technical bulletin and should not be used or taken as specifications. Contact Polymark prior to establishing specifications. The information given for product description, handling properties and cured physical properties are offered solely to assist the purchaser's own testing. Polymark, its sales agents and distributors make NO WARRANTY OF MERCHANTABILITY OF THE PRODUCT OR THE FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE. This product and all information supplied in connection with it is used at the purchaser's own risk, conditions of use being beyond Polymark's knowledge or control. The purchaser assumes all risk of use or handling of the product, whether in accordance with directions or not.

Typical Cured Physical Properties

<u>CHARACTERISTIC</u>	<u>VALUE</u>
Cured Hardness (Shore D)	80
Oil Resistance	Excellent
Moisture Absorption (24hrs)	<0.10%
Elongation	5%

The above cured physical properties were developed using a cure schedule of initial UV cure plus one hour at 125°C. The choice of the user's cure schedule will depend on the application and the user must determine suitability. The maximum amount of adhesive in a monolithic casting should not exceed 25 grams at 100°C, 5 grams at 150°C. If a thin bond line is used, exothermic concerns are eliminated. Contact Polymark for further information.

Shelf Life and Storage:

Polymark UVA4003-2 has a shelf life of 6 months when stored in sealed containers at 4°C, 3 months at 25°C. Beyond these times, a change in viscosity could render the material unusable for the specific application.

UVA4003-2 is reactive to ambient light. Care should be taken to protect it from light exposure after removal from the original containers. Contact Polymark for recommendations.

Care should also be taken to avoid storage of UVA4003-2 in warm areas such as non-ventilated exterior structures, near ovens or near other heat sources. Elevated temperatures shorten UVA4003-2's shelf life.

Handling Safeguards:

Closely follow instructions on the labels of Polymark materials containing information on the hazards associated with each particular product. Most epoxy resin systems are skin and eye irritants and more serious health hazards may exist. Consult the Material Safety Data Sheet for further information.

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