



Technical Data Sheet

POLYMARK P183 One-Component Epoxy Potting/Encapsulant

Features:

- **Tough and Flexible**
- **Fast Heat Cure**
- **No Mixing Required**
- **Heat and Chemical Resistance**
- **Good Silicone Replacement**

Product Description:

Polymark P183 is a one component, heat curing epoxy. It cures to a tough, flexible hardness resistant to cracking. Polymark P183 has excellent adhesive properties to a wide variety of components and substrates making it an excellent choice for encapsulating electronic assemblies of various metals, plastics and other common materials.

Polymark P183 has steady, linear cure kinetics which makes it able to cure in larger monolithic masses which is ideal for potting. While P183 cures relatively quickly, a continuous elevated temperature is required for full cure.

Typical Product Handling Properties:

<u>CHARACTERISTIC</u>	<u>VALUE</u>
Color	Black
Density (gram/cc)	1.07
Viscosity @25°C (cps.)	5,000
Solids Content (%)	100%
Shelf Life	
4°C	6 months
25°C	3 months
*Oven Cure Time	
125°C	30 minutes
150°C	15 minutes

*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)	25-35
Moisture Absorption (24hrs)	<0.20%
Glass Transition	<25°C
Coefficient of Linear Thermal Expansion (25°C)	125 ppm

The above cured physical properties were developed using a cure schedule of one hour at 125°C. The choice of the user's cure schedule will depend on the application and the user must determine suitability. Contact Polymark for further information.

Shelf Life:

Polymark P183 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.

All P183 containers are labeled with the date of manufacture. Customers should use this date to insure their inventory is used on a first in, first out basis.

Care should be taken to avoid storage of P183 in warm areas such as non-ventilated exterior structures, near ovens or near other heat sources. Elevated temperatures shorten P183'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 Safety Data Sheet for further information.

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