



## Technical Data Sheet

### A438

*Clear, Heat-Curable Silicone Coating*

#### Description

A438 is an optically clear, heat-curing, low stress coating designed for electronic and microelectronic applications. It provides mechanical and environmental protection to delicate electronic devices.

#### Advantages

The A438 is a stable one-part coating that will bond to most surfaces after curing. Its viscosity allows for a controlled flow of the material upon application. As with most silicones, it has excellent moisture and heat resistance. A438 cures to a tough, tear resistant hardness while still providing low stress to most electronic components.

#### User Instructions

Storage: A438 is stable at room temperature. However, refrigeration will extend the shelf life.

In order to insure the best adhesion of this coating and device protection, be sure that the substrate surface is clean and dry prior to application.

#### Safety Precautions

This product may be a skin and eye irritant. Closely follow the instructions on the Material Safety Data Sheet.

#### Handling Properties

Viscosity @ 10 rpm	35,000 cps
Shelf life at 25 °C	3 months
at 0°C	6 months

#### Recommended Cure Schedule:

Time in 150°C oven	1 hour
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#### Typical Physical Properties

Cured Appearance	Clear
Operating Temperature Range	-50°C to 180°C
Hardness	Shore A45
Tensile Strength	150 psi
Glass Transition Temperature	-45°C
% Solids	100%
Specific Gravity	1.01

#### Ionic Properties

F <sup>-</sup>	< 5 ppm
Cl <sup>-</sup>	< 10 ppm
NH <sub>4</sub> <sup>+</sup>	< 5 ppm
Na <sup>+</sup>	< 5 ppm
K <sup>+</sup>	< 5 ppm

Materials such as water, sulfur, nitrogen compounds, organic metal salts, phosphorous compounds etc., contained in the surface of the substrate may cause cure inhibition. A sample patch test should always be conducted before proceeding to determine compatibility. Particular care should be taken with organic rubbers, flux, amine cured epoxy resins, various waxes and condensation type silicone rubbers.

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**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.

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