

# A430 Black

# One Part, Heat Curing, Electrical Grade Silicone Adhesive

# **Description:**

Polymark A430 is a one part, electrical grade, silicone adhesive. It remains uncured at room temperature to provide a long working life. A430 cures quickly at elevated temperatures for rapid production line assembly operations. Since it is a single component formulation, no mixing is needed. A430 bonds well to a variety of surfaces without the use of a primer.

Polymark A430 is an addition curing silicone, which makes it particularly well suited for thick section curing. It creates no by-products as it cures.

Polymark A430 is a viscous, flowable material, and it cures to a soft A-40 hardness for low stress on surfaces to which it bonds. A430 has excellent low and high temperature properties. It is used in electronic and assembly applications where both sealing and adhesive properties are required.

### **Typical Properties:**

The values listed below are averages and they are not intended for specification purposes. Contact Polymark when establishing specifications. The cured and electrical properties were developed by using a cure schedule of one hour at 150°C. The choice of used schedule will vary with the application and users must establish their own optimum cure schedules.

#### **Handling Properties:**

| Viscosity @ 25°C              | 120,000 cps |
|-------------------------------|-------------|
| ASTM D 2393                   |             |
| Shelf Life 5°C (40°F)         | 1 year      |
| 25°C (77°F)                   | 3 months    |
| Typical Cure Schedule @ 150°C | 30 minutes  |

#### **Physical Properties:**

| Hardness                  | A-40    |
|---------------------------|---------|
| ASTM D 2240               |         |
| Specific Gravity          | 1.27    |
| ASTM D 696                |         |
| Color                     | Black   |
| Temperature Rating Guide* | 200°C   |
| Tensile Strength          | 450 psi |
| ASTM D 412                |         |
| Tensile Elongation        | 170%    |
| ASTM D 412                |         |
| Tensile Shear Strength    | 400 psi |
| ASTM D 1002               | ·       |

#### **Electrical Properties:**

| Dielectric Constant (1MHz) ASTM D 150          | 2.89                 |
|--|----------------------|
| Volume Resistivity @25C (ohm-cm)<br>ASTM D 257 | 2 x 10 <sup>15</sup> |

\*Temperature Rating Guide: Is based on average design requirements and the guide is not intended as a guarantee of suitability for all applications operating at that temperature. The guide is based on the weight loss.

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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.

1-317-849-1661

POLYMARK A430 Page 2 of 2

#### **Cure Inhibition:**

As with all addition curing silicones, avoid using Polymark A430 on surfaces bearing amines, sulfur or tin salts. Materials such as wood or natural rubber may contain these cure inhibiting ingredients and they can leave the A430 soft and uncured. If in doubt, apply a test patch of A430 to the surface and test cure it on the normal schedule.

#### Clean-Up:

It is recommended that customers use disposable containers and utensils when working with silicones. However, when disposable materials are impractical, uncured silicone can be removed by cleaning equipment with solvent. Observe appropriate precautions when using flammable solvents.

Solvent-cleaned utensils should be thoroughly dried before reuse. Any remaining solvents can contaminate the next mixture.

#### Shelf Life:

Polymark A430 has a maximum shelf life of approximately three months at room temperature (25°C or 75°F) in closed containers. Shelf life may be extended to one year by storage at 5°C (40°F).

## **Handling Precautions:**

The labels on containers of Polymark materials contain current information on the hazards associated with each particular product. Most silicone compounds may be irritating to the eyes and some may be mild skin irritants. Further information on each product is contained in the Material Safety Data Sheet which will be sent upon request.