Technical Data Sheet

Electronic & Engineering Materials

EASYPOXY® K-230

Two-Component Epoxy Adhesive

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EASYPOXY[®] K-230

Product Description

 $\mathsf{EASYPOXY}^{\circledast}$ K-230 is a two-component, 100% solids, room temperature cure epoxy adhesive system

Areas of Application

General-purpose adhesive and repair compound for bonding of materials with widely different coefficients of thermal expansion

Features and Benefits

- High bond strength
- Electrically insulating
- Room temperature or low heat cure
- Neutral color for less noticeable bond lines
- Non-flowing paste

Transportation / Storage

Store at or below 25°C / 77°F in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for twelve (12) months from the date of shipment.

Failure to store the product as recommended above may lead to deterioration in product performance.

Health / Safety

Refer to the Safety Data Sheet.

See ELANTAS PDG Technical Bulletins *TI-100* -Handling Precautions for Epoxy Resins and *TI-*4005 - Epoxy Reaction Potential Hazards for additional information.

| Property | Conditions | Value | | |
|------------------|-----------------|---------------------------------------------|------------------------------------------------|--|
| | | EASYPOXY [®] K-230 Part A Resin | EASYPOXY [®] K-230 Part B Hardener | |
| Viscosity | 25°C / 77°F | 100,000 cP | 50,000 cP | |
| Specific Gravity | 25°C / 77°F | 1.17 | 1.08 | |
| Color | | clear | light amber | |
| Mix Ratio | Parts by weight | 100 | 45 | |
| Flash Point | ASTM D93 | >94°C >201°F | >94°C >201°F | |

Typical Properties of Material as Supplied

Regulatory Information

| RoHS Compliance | EASYPOXY [®] K-230 Part A Resin and EASYPOXY [®] K-230 Part B Hardener comply with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 (RoHS 2.0) as amended 31 March 2015. |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Council of 8 June 2011 (RoHS 2.0) as amended 31 March 2015. |



EASYPOXY[®] K-230

Surface Preparation

High-strength bonds can only be obtained if all surfaces to be bonded are free of moisture, dirt, rust, chemicals, and mold releases. In addition, surfaces to be bonded should be sandblasted, etched, or degreased. See ELANTAS PDG Technical Bulletin *TI-3000 Surface Preparation Guide* for additional information.

Application / Curing Schedule

Mix equal length beads of K-230 Part A Resin and K-230 Part B Curative from the tube kits or at 100:45 by weight until a uniform color is achieved.

The bond surface must be dry and free from oil and dirt. Apply adhesive with a spatula or stiff brush to both joining surfaces. Apply light pressure to ensure proper wetting and contact of bonded surfaces.

Work life: 60 minutes @ 25°C / 77°F

Cure 24 - 36 hours at 25° C / 77° F – or – 2 hour at 65° C / 149° F

The cure schedules above are based on time after the unit reaches the specified temperature and are recommendations only. The user is responsible for determining the optimum cure conditions for his application.

If crystallization has occurred place the container in a 49 - 71°C / 120 - 160°F water bath until material is again pliable.

| Property | Test Method | Conditions | Value | Units |
|--------------------------------------------------|-------------|----------------------------------------------|-------------------------|-------------------|
| Appearance | | 25°C / 77°F | Clear | |
| Shore Hardness | ASTM D2240 | 25°C / 77°F | D 80 | |
| Flexibility | | | semi-flexible | |
| Lap Shear Strength Etched aluminum / aluminum | ASTM D1002 | -55°C / -67°F 25°C / 77°F 82°C / 180°F | 1,400 2,500 1,500 | psi psi psi |
| Linear Shrinkage | ASTM D2566 | 25°C / 77°F | 0.7 | % |
| Water Absorption | ASTM D570 | 24 h @ 25°C / 77°F | 0.4 | % |
| Flexural Strength | ASTM D790 | 25°C / 77°F | 10,000 | psi |
| Compressive Strength | ASTM D695 | 25°C / 77°F | 18,000 | psi |
| Thermal Conductivity | | 25°C / 77°F | 0.2 | w/m∙K |
| Fungus Resistance | ASTM G21 | | Non-nutrient | |

Typical Physical Properties



EASYPOXY[®] K-230

Typical Electrical Properties

| Property | Test Method | Conditions | Value | Units |
|---------------------|-------------|---------------------|------------------------|--------|
| Dielectric Constant | ASTM D150 | 1 kHz @ 25°C / 77°F | 4.6 | |
| Dissipation Factor | ASTM D150 | 1 kHz @ 25°C / 77°F | 0.01 | |
| Volume Resistivity | ASTM D257 | 1 kHz @ 25°C / 77°F | 4.0 x 10 ¹³ | ohm-cm |

The above properties are typical values and are not intended for specification use.

ELANTAS PDG, Inc. warrants the chemical composition of its products within stated tolerances, but does not guarantee that a product will be appropriate for any particular application. Any recommendation, performance of tests or suggestion is offered merely as a guide and is not a substitute for a thorough evaluation by the user. No representative of ELANTAS PDG, Inc. has the authority to offer a warranty that a product will perform satisfactorily in manufacturing an article and no such representation should be relied upon.

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