Technical Data Sheet

Electronic Coating Materials

EASYPOXY® K-45

Two-Component Epoxy Adhesive

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EASYPOXY® K-45

Product Description

EASYPOXY® K-45 is a two-component, 100% solids, room temperature cure epoxy adhesive system

Areas of Application

General-purpose adhesive and repair compound for metal, glass, wood, ceramics and most plastics

Features and Benefits

- High bond strength
- Electrically insulating
- Room temperature or low heat cure
- Quick setting (4 – 6 minutes)
- Convenient mix ratio of 1:1
- 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.

Typical Properties of Material as Supplied

Property	Conditions	Value	
		EASYPOXY® K-45 Part A Resin	**EASYPOXY® K-45 Part B Hardener**
Viscosity	25°C / 77°F	300,000 cP	150,000 cP
Specific Gravity	25°C / 77°F	1.16	1.19
Color		Clear	Amber
Mix Ratio	Parts by weight Parts by volume	100 100	100 100
Flash Point	ASTM D93	>94°C >201°F	>94°C >201°F

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.

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Application / Curing Schedule

Mix equal parts of EASYPOXY® K-45 Part A Resin and K-45 Part B Hardener by weight or by volume 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: 4 – 6 minutes @ 25°C / 77°F with gelation around 10 minutes

Cure 24 hours at 25°C / 77°F **– or –** 1 hour at 65°C / 149°F for maximum properties.

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 their application.

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

Typical Physical Properties

Property	Test Method	Conditions	Value	Units
Color			light amber	
Shore Hardness	ASTM D2240	25°C / 77°F	D 85	
Flexibility			semi-flexible	
Lap Shear Strength Etched aluminum / aluminum	ASTM D1002	-55°C / -67°F 25°C / 77°F 82°C / 180°F	1,800 2,500 440	psi psi psi
Tensile Strength	ASTM D412	25°C / 77°F	3,000	psi
Linear Shrinkage	ASTM D2566	25°C / 77°F	1.0	%
Water Absorption	ASTM D570	24 h @ 25°C / 77°F	1.3	%
Flexural Strength	ASTM D790	25°C / 77°F	7,800	psi
Compressive Strength	ASTM D695	25°C / 77°F	15,000	psi
Thermal Conductivity		25°C / 77°F	0.2	w/m·K
Fungus Resistance	ASTM G21		non-nutrient	

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Typical Electrical Properties

Property	Test Method	Conditions	Value	Units
Dielectric Constant	ASTM D150	1 kHz @ 25°C / 77°F	4.1	
Dissipation Factor	ASTM D150	1 kHz @ 25°C / 77°F	0.02	
Volume Resistivity	ASTM D257	1 kHz @ 25°C / 77°F	2.5×10^{14}	ohm-cm

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