

KEOL

EPOXY ADHESIVE

K-POXY 4223

2C



4223 adhesive from the K-POXY range is a two-component, fast-curing thermally conductive epoxy adhesive. K-POXY 4223 has a simple 1:1 mix ratio and develops 1,400 psi (aluminum to aluminum) Lap shear strength in four hours at room temperature. After only twenty-four hours, the force is over 2,200 psi. K-POXY 4223 provides fast heat dissipation for a wide range of electronic applications. Black resin and white hardener provide excellent visual indication of complete mixing.

- VIBRATION AND IMPACT RESISTANT
- ELECTRICALLY INSULATING
- THERMALLY CONDUCTIVE
- FAST ROOM TEMPERATURE CURE

CHEMICAL BASIS	Epoxy
SETTING TIME	2 hours (ambient temperature)
COLOR	Grey
HARDNESS	80D
RATIO	1:1

PROPERTIES	Resin	Hardener
Color	Black	White
Viscosity @25°C	70000	70000
Density at 25°C cps	1.5	1.5
REACTIVITIES		
Freezing time* @25°C 15 grams	15 minutes	
Shore hardness @25°C	80D	
Shore hardness @70°C	50D	
Shear strength psi After 4h	1,413psi	
Shear strength psi After 24h	2231psi	
Thermal conductivity, W/m-°K	1.04	
Dielectric strength, V/mil	440	
Dielectric constant @25°C , 100Hz	5.3	
Volume resistivity, ohm-cm @25°C	2.4x1012	
Coefficient of thermal expansion ppm/°C under TG	45	
Above the TG	175	
Operating temperature °C	-40 to +120	

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NOTES

- 1) At room temperature, **4223 adhesive from the K-POXY range** will reach cure in 1 to 2 hours. The shear strength of the overlay is 1413 psi after 4 hours.
- 2) **4223 adhesive from the K-POXY range** is an adhesive and is not intended for potting and encapsulation applications. **4223 adhesive from the K-POXY range** is a fast reacting epoxy system that creates a high exothermic temperature in large masses (avoid masses over 25 grams).



APPLICATION

- 1) Surfaces must be clean and free of grease. Use an oil-free solvent such as acetone to wipe surfaces. Adhesion can be greatly increased by abrading the surfaces to be bonded with emery cloth, sandpaper, carbide grinding tools, sandblasting, etc. A rough, porous surface will give the best results. Any oxidized metallic film should be removed just prior to applying the epoxy adhesive mixture.
- 2) Apply the mixed product to the support to be bonded.
- 3) Join substrates in 3-5 minutes.
- 4) Hardening according to one of the following programs:

25°C	2-4 hours
65°C	< 10 minutes



STORAGE & PACKAGING

4223 adhesive from the K-POXY range is available 1:1: 50ml, 200ml and 400ml double barrel cartridges. The expected shelf life is 12 months. Store in a cool, dry place in the original containers.

Please read and understand the Safety Data Sheet (SDS) before using this product.



NOTE

The information, and particularly the recommendations regarding application and KEOL products, are given to you in good faith and are based on current knowledge and experience of the products having been properly stored, handled and applied under normal conditions. KEOL cannot take responsibility for the results obtained by others since we have no control over their method. It is up to the user to determine the suitability of the products for the specific application for any production methods mentioned in this document. Also, it is up to the user to adopt the necessary precautions as advised for the protection of the establishment and people against any kind of risks that could arise during the handling and use of the products. KEOL cannot assume all warranties mentioned or implied, including warranties of merchantability or fitness for a specific purpose, arising from the sale or use of KEOL products. KEOL cannot assume liability for incidental consequences or damages of any kind, including lost profits. Users should always refer to the most recent edition of the technical data sheet for the product concerned. Copies of this document will be provided upon request. Users should always refer to the most recent edition of the technical data sheet for the product concerned. Copies of this document will be provided upon request. Users should always refer to the most recent edition of the technical data sheet for the product concerned. Copies of this document will be provided upon request.

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