KLEBER KB-XERM AA1003 Thermally Conductive Acrylic Adhesive

Product Introduction

KLEBER KB-XERM AA1003 is a two-component acrylic adhesive designed to provide both thermal conductivity and adhesion to electronic applications. It can be cured in short time without primer at room temperature and produce a flame retardant material.

Features and Benefits

- Fast curing at room temperature
- High thermal conductivity
- Reliable bonding
- Easy to mix and apply
- Environmentally resistant
- Non-flammable



Typical Properties

Properties	Unit	Part A	Part B	Mixed
Appearance	-	Blue paste	Off-white paste	Blue paste
Viscosity @ 25°C	Pa·s	200-400	200-400	-
Specific Gravity	g/cm^3	1.65	1.75	1.67
Mix Ratio by Volume	-	4	1	-
Working Time @ 25°C	min	-	-	3
Time to Handle Strength@ 25°C	min	-	-	6-10
Full Cure time @ 25°C	h	-	-	2-3

Typical Cured Properties

Properties	Unit	Test Method	Value
Thermal Conductivity	W/m·K	ASTM D5470	1.0
Hardness	Shore D	ASTM D2240	60
Lap Shear Strength, Aluminum@ 25°C	MPa	ASTM D1002	10
Glass Trannsition Temperature	°C	DMA	80
Dielectric Strength	KV/mm	ASTM D149	18

Application

- Power modules
- Routers and communication station
- Security system

Operation Process

- Mixing: mix the two parts at a ratio of 4:1 by volume, handheld cartridges or automatic dispense are recommended for accurately mixing.
- Applying: clean the substrates and apply the mixed adhesive to bond surfaces, join the parts within short operating time and add enough pressure until the handling strength is reached.
- Curing: the mixed adhesive can reach handling strength in 6-10 minutes at room temperature, and achieve full strength in 2-3 hours. The curing can be indicated by visual color change.

Shelf Life/Storage

- Shelf life of each component is 6 months from date of manufacture when stored at 4-10°C in original unopened container. Do not return dispensed adhesive to the original container.

Cautions：
The information provided in the Technical Data Sheet (TDS) (including product use and application recommendations) is based on our knowledge and experience of Kleber products. The data contained in this TDS is for reference only and is considered reliable. We cannot be held responsible for the results of others as a result of methods beyond our control. This product can have a variety of different applications and different working conditions in your environment, which is beyond our control. Therefore, Kleber assumes no responsibility for whether the product is suitable for your production process and conditions as well as the expected applications and results. We strongly recommend that you test the product before use to confirm the applicability of the product.

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