



50-3112 FAST CURING THERMALLY CONDUCTIVE EPOXY ADHESIVE

DESCRIPTION:

50-3112 is a two-component fast curing thermally conductive epoxy adhesive. This product was specifically formulated for use in the convenient TriggerBond® dual barrel cartridge system.

50-3112 has a simple 1:1 mix ratio and develops a 1,400 psi Lap Shear strength (aluminum to aluminum) in four hours at room temperature. After just twenty-four hours the strength is over 2,200 psi.

50-3112 offers fast heat dissipation for a wide range of electronic applications. The black resin and white hardener provide an excellent visual indication of a complete mix.

FEATURES:

- Fast room temperature cure
- Thermally conductive
- Packaged in TriggerBond® system
- Forms strong bonds to a variety of substrates
- Electrically insulating
- Vibration and impact resistant

TYPICAL PROPERTIES:

Viscosity, cps, 25 °C	
50-3112RBK Resin	70,000
50-3112CWH Catalyst	70,000
Color	
50-3112RBK Resin	Black
50-3112CWH Catalyst	White
Mixed	Dark Gray
Gel Time, Minutes, 15 grams, 25 °C	15 minutes
Hardness, Shore D	
25 °C	80
70 °C	50
Mix Ratio, By Volume	1:1
Operating Temperature Range, °C	-40 to +120
Specific Gravity, 25 °C	
50-3112RBK Resin	1.5
50-3112CWH Catalyst	1.5



Lapshear Strength (Al to Al), psi	
After 4 hours	1,413
After 24 hours	2,231
Dielectric Strength, V/mil	440
Dielectric Constant, 25 °C, 100Hz	5.3
Volume Resistivity, ohm-cm, 25 °C	2.4 x 10 ¹²
Coefficient of Thermal Expansion, ppm/°C	
Below Tg	45
Above Tg	175
Thermal Conductivity, W/m·°K	1.04

Use as an adhesive only. Curing masses greater than 25 grams is not recommended due to the possibility of an exothermic reaction.

INSTRUCTIONS FOR USE:

1. Apply product to substrate to be bonded following TriggerBond® dispensing guidelines.
2. Bond substrates within 3-5 minutes and cure according to one of the following schedules:
 - a) 25 °C 2-4 Hours
 - b) 65 °C < 10 Minutes

PREPARATION OF SURFACES:

Surfaces must be clean and grease free. Use an oil free solvent such as acetone to wipe surfaces. Adhesion can be substantially increased by abrading the surfaces to be bonded with emery cloth, sandpaper, carbide grinding tools, and sand blasting. A roughened, porous surface will produce the best results. Any oxidized metal films should be removed just prior to application of the epoxy adhesive mixture.

STORAGE, HANDLING, & SAFETY:

Expected shelf life is 12 months. Store in a cool, dry place in original containers. Please read and understand the Safety Data Sheet (SDS) before using this product.

AVAILABILITY:

50-3112 is available in the convenient TriggerBond® dual barrel cartridges in 50 mL, 200 mL, and 400 mL.

IMPORTANT:

EPOXIES, ETC. MAKES NO EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY, FITNESS OR OTHERWISE WITH RESPECT TO ITS PRODUCTS. The information in this brochure is based on data obtained by our own research and is considered reliable. However, no warranty is expressed or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. The properties given are typical values and are not intended for use in preparing specifications. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular purpose. 10/2024