



ISO-9001-2015 Certified

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# TECHNICAL BULLETIN

## EPOXIOHM™ EO-31FL

### FLEXIBLE ELECTRICALLY CONDUCTIVE EPOXY ADHESIVE

**EO-31FL** is a flexible, electrically conductive, silver filled epoxy paste. This two-component system is designed to be cured at room temperature or the cure can be accelerated by elevated temperatures. The system is a 100% solids epoxy system, contains no solvents. This smooth, flowing paste has over 3 hours working life. This long working life enables the user to apply this material by dispensing, printing or by hand. The versatility in application methods allows its use in a wide variety of applications.

**EO-31FL** exhibits superior adhesion to a wide variety of substrates including most metals, ceramics, glass and plastics. This material is well suited for use in electronic component and die attach, substrate attach and EMI shielding applications. It is also widely used in low temperature and cryogenic applications.

#### TYPICAL HANDLING PROPERTIES:

Consistency	Smooth paste
Mix ratio by weight (A: B)	1:1
Work Life (25 grams), hours	>3
Shelf life @ 25°C	1 year
Recommended Cure	2 hrs @ 70-90°C
Alternate Cure	4 hrs @ 60°C
	48 hrs @ 25°C

#### TYPICAL CURED PROPERTIES:

(Tested at 25°C unless otherwise indicated)

Color	Silver
Specific Gravity	3.2
Hardness, Shore A	65
Lap Shear Strength to Aluminum, psi	600
Volume Resistivity, ohm-cm	<0.002
Glass Transition Temperature (Tg), °C	10
Coefficient of Thermal Expansion, ppm/°C	
Below Tg	69
Above Tg	200
Ionic Impurities*:	
Chloride (Cl <sup>-</sup> )	< 100 ppm
Sodium (Na <sup>+</sup> )	< 20 ppm
Potassium (K <sup>+</sup> )	< 20 ppm

- Ionic Impurities are based on calculation from the analysis data of raw materials supplied by the suppliers.

#### INSTRUCTIONS FOR USE:

1. Mix each component thoroughly before use.
2. Weigh equal amounts of Part A and Part B.
3. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
4. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
5. Typical cured properties were determined using recommended cure schedule.
6. Some difference in properties may occur with the alternate or other cure schedules.

#### FROZEN ADHESIVE:

Thaw premixed frozen adhesive at room temperature for 5-10 minutes. Dispense adhesive and cure at recommended schedules.

#### AVAILABILITY:

**2 parts Kit** - Packaged in Pint, Quart, Gallon, and 5-Gal

**Premixed and frozen** - Packaged in 3cc, 5cc, 10cc and 30cc disposable syringes and ship in dry ice at -80°C.

#### FOR INDUSTRIAL USE ONLY:

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

#### WARNING!

Adequate ventilation of work place and ovens is essential. Refer to Material Safety Data Sheet (**MSDS**) for additional health and safety information.

#### SHELF LIFE:

One year when stored in unopened containers at an average temperature of 25°C

**DISCLAIMER:** All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.