

Bondmaster® E14

Two Part Epoxy Resin

Technical Information Sheet

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Description:

Bondmaster E14 has been formulated for potting and encapsulation electronic components. It exhibits excellent arc-track resistance and fire retardancy combined with good thermal conductivity. Its low water absorption and good chemical and temperature resistance makes it ideal for applications exposed to the weather or aggressive environments.

Physical Properties:

	Part A - Resin	Part B - Hardener	Mixed
Colour	Yellow	Blue	Green
Viscosity (mPa.s)	65,000	150	10,000
Specific Gravity	1.66	1.03	1.55
Mix Ratio - By Weight - By Volume	100:8 7:1	Gap Fill (on a vertical surface)	< 0.5 mm

Generally the recommended service temperature range for this product is -55 to +100°C. However experience has shown that higher temperatures, of around 200°C, may be endured for short periods providing the adhesive is not unduly stressed.

Typical Performance:

<u>Cure Speed</u>	<u>Usable Life</u>	<u>Handling Strength</u>	<u>Working Strength</u>	<u>Full Strength</u>	The cure speed of 2 part epoxy resins is generally affected by the ambient temperature. A fall of 8°C will roughly double the cure time; a rise of 8°C will tend to halve it.
- at 23°C	12 mins.	4 hrs.	16 hrs.	24 hrs.	
- at 60°C			10 mins	20 mins.	
Lap Shear Strength (MPa) EN1465:1995		16 (Steel)	On Composites this adhesive is capable of strengths similar to that achieved on steel but in most cases delamination on the composite will occur before this load is reached. On Aluminium & Copper alloys the modulus and thickness of the metal will define the ultimate bond strength achieved.		

Storage :

When stored in the original unopened containers at 5-7°C, the shelf life of this product is 36 months from date of manufacture.

Handling:

Full information can be obtained from the Material Safety Data Sheet (M.S.D.S.). Users are reminded that all materials, whether innocuous or not, should be handled according to the principles of good industrial hygiene.

Directions for Use:

Thoroughly mix Resin (A) and Hardener(B) in the correct proportion. Do not mix more material than can be applied during the 'usable life' of the product. Surfaces should be clean, dry and grease free before applying the adhesive.

When encapsulating components care should be taken to prevent air entrapment during mixing and pouring of the resin. Stir the resin component prior to use to ensure uniform distribution of the filler.

Bondmaster E14 meets the requirements of UL94 V 0

The information given and the recommendations made herein are based on our experience and are believed to be accurate. No guarantee as to, or responsibility for, their accuracy can be given or accepted, however, and no statement herein is to be treated as a representation or warranty. In every case we urge and recommend that purchasers, before using any product, make their own tests to determine, to their own satisfaction, its suitability for their particular purposes under their own operating conditions.

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