

Bondmaster® E11

Two Part Epoxy Resin

Technical Information Sheet

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Description:

Bondmaster E11 has remarkable resistance to both static and dynamic loading, and bonds to a wide variety of materials including metals, composites, ceramics and wood. E11 has been selected for many industrial assemblies where structural integrity is required. Applications extending back over 20 years confirm its excellent environmental durability. Similar to E32 its lower viscosity makes it more suitable for applications where a thin bond line is ideal.

Physical Properties:

	Part A - Resin	Part B - Hardener	Mixed
Colour	White	Amber	Ivory
Viscosity (mPa.s)	28,000	22,000	25,000
Specific Gravity	1.38	0.96	1.16
Mix Ratio - By Weight - By Volume	100:75 1:1	Gap Fill (on a vertical surface)	< 0.7 mm

Generally the recommended service temperature range for this product is -55 to +80°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	2 hrs.	8 hrs.	24 hrs.	72 hrs.	
- at 60°C			30 mins	1 hr.	
Lap Shear Strength (MPa)		24 (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 5-25°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.

Where maximum strength is required then the surfaces should be shot blasted, or lightly abraded, in the presence of Bondmaster SIP.