

Bondmaster E04

Two Part Epoxy Resin

Technical Information Sheet



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Description:

With over 20 years of proven performance in structurally demanding applications Bondmaster E04 is recommended when the benefit of a fast cure, coupled with excellent resistance to vibration or impact loading, is required. Capable of bonding a wide variety of materials (wood, metals, plastics and ceramics) E04 is particularly suited to the assembly of composite structures made from SMC, DMC or 'wet lay-up' polyesters.

Physical Properties:

	<u>Part A - Resin</u>	<u>Part B - Hardener</u>	<u>Mixed</u>
Colour	White	Black	Grey
Viscosity (mPa.s)	Soft Paste	Soft Paste	100,000 Soft Paste
Specific Gravity	1.32	1.37	1.34
Mix Ratio	- By Weight - By Volume	1:1 1:1	Gap Fill (on a vertical surface) ~2 mm

Generally the recommended service temperature range for this product is -55 to +70°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	8 min	4 hrs.	16 hrs.	24 hrs.	
- at 60°C	—	—	10 mins.	20 mins.	
Lap Shear Strength 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 5-25°C, the shelf life of this product is 24 months from the date of despatch from Bondmaster.

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.
Ideally Bondmaster E04 should be cured at temperatures above 10°C. Lower temperatures will result in lower strength.

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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