

Bondmaster® FE Rapid Two Part Epoxy Resin Technical Information Sheet

Bondmaster® Division
Woodside Road, Eastleigh
Hampshire, SO50 4EX, UK
Tel: +44 (0)23 8062 9628
Fax: +44 (0)23 8062 9629
email: bondmaster.europe@nstarch.com
www.bondmaster.com

Description:

Bondmaster FE Rapid (E3762) has been designed to effect fast repairs to damaged metalwork such as castings, pipes, valves and engines. Once working strength has been achieved Fe Rapid can be machined, drilled, tapped or sawn in the same way as solid metal. This adhesive can be used on all common metals to provide an almost invisible repair on the darker surfaces like iron and steel. Fe Rapid provides excellent resistance to abrasion, chemicals and corrosion.

Physical Properties:

	Part A - Resin	Part B - Hardener	Mixed
Colour	Grey	Grey	Grey
Viscosity (mPa.s)	Heavy Paste	Heavy Paste	Heavy Paste
Specific Gravity	3.2	2.00	2.6
Mix Ratio - By Weight - By Volume	100:62 1:1	Gap Fill (on a vertical surface)	~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	8 mins.	15 mins	3 hrs.	6 hrs.	
- at 60°C			4 mins	30 mins.	
Lap Shear Strength (MPa) EN1465:1995		15 (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.