



# LOCTITE<sup>®</sup> E3520

July 2007

## Description:

Loctite E3520 is a medium viscosity two part epoxy adhesive with improved resistance to elevated temperatures and chemical resistance. It is particularly suitable for "high temperature" metal bonding, it can however provide a high strength, durable bond on a variety of other materials such as plastic, glass, ceramics, and ferrites.

Physical Properties:	Part A - Resin	Part B - Hardener	Mixed
Colour	Black	White	Grey
Viscosity (mPa.s)	14,000	14,000	14,000
Specific Gravity	1.22	0.99	1.17
Mix Ratio- By Weight - By Volume	2:1 100:60	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 - at 60°C	2 hrs.	8 hrs.	24 hrs. 30 mins.	72 hrs. 1 hr.	
Lap Shear Strength (MPa)	23 (Steel)		On <b>Composites</b> 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 <b>Aluminium &amp; Copper</b> 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 Loctite SIP.

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.

---

Henkel Loctite Americas  
+860.571.5100

Henkel Loctite Europe  
+49.89.9268.0

Henkel Loctite Asia Pacific  
+81.45.758.1810

**For the most direct access to local sales and technical support visit: [www.loctite.com](http://www.loctite.com)**