PERMABOND® ET522

Two-Part Epoxy

Provisional Technical Datasheet

Features & Benefits

- Adhesion to a wide variety of substrates
- High shear and peel strength
- Excellent chemical resistance
- Low viscosity
- High temperature resistance

Description

PERMABOND® ET522 a low viscosity two part adhesive with long pot life after mixing. It is suitable for bonding a wide variety of metals, plastics, composites and ceramic material. It has excellent chemical and temperature resistance. Its low viscosity and long pot life make it ideal for spreading over large surfaces

Physical Properties of Uncured Adhesive

	ET522A	**ET522B**
Chemical composition	Epoxy Resin	Polyamide Hardener
Appearance	White	Colourless
Viscosity @ 25°C	5,000-10,000 mPa s	5,000-15,000 mPa s

Typical Curing Properties

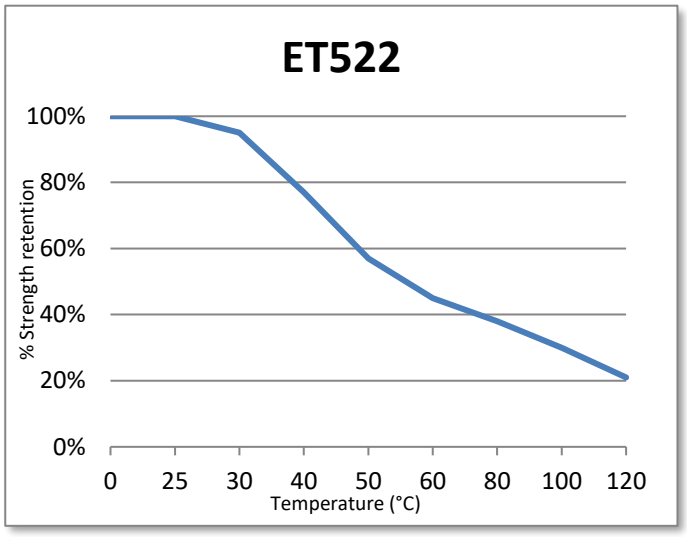
Mix ratio	By weight: 2:1 By volume: 100:60
Maximum gap fill	0.5 mm ***0.02 in***
Usable / pot life @23°C 10g total mass	2 hours
Handling strength @23°C	8 hours
Working strength	@23°C: 24 hourse @60°C: 30 minutes
Full cure	@23°C: 72 hours @60°C: 1 hour

Typical Performance of Cured Adhesive

Shear strength (mild steel)* ISO 4587	18-21 N/mm² ***(2600-3000psi)***
Shore Hardness (ISO868)	80-90 Shore D

**Strength results will vary depending on the level of surface preparation and gap.*

Temperature Resistance



ET522 can withstand higher temperatures for brief periods (such as for paint baking and wave soldering processes) providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed to is -40°C (-40°F) depending on the materials being bonded.

Additional Information

This product is not recommended for use in contact with strong oxidizing materials.

Information regarding the safe handling of this material may be obtained from the material safety data sheet (MSDS).

Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene.

FOR PROFESSIONAL OR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN

Surface Preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Use a suitable solvent (such as acetone or isopropanol) for the degreasing of surfaces. Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth (or similar), to remove the oxide layer.

Directions for Use

1. Measure 2 parts resin to 1 part hardener (by weight). Mix thoroughly taking care not to entrap air. Adhesive can be applied and mixed by automated dispensing equipment. Apply material to one of the substrates.
2. Large quantities and/or higher temperature will decrease the usable life or pot life.
3. Ensure parts are assembled in correct position before adhesive cures.
4. Apply pressure to the assembly by clamping for until handling strength is obtained.
5. Full cure will be obtained after 72 hours at 23°C (77°F). Heat can be used to accelerate the curing process.

NB. Exercise caution when mixing large quantities due to exothermic reaction.

Storage & Handling

Storage Temperature	5 to 25°C ***(41 to 77°F)***
Shelf Life Stored in original unopened containers	12 months

Other Products Available

Anaerobics

- Toughened
- Gas & water approved
- High temperature resistance
- Flexible

Cyanoacrylates

- Low bloom / low odour
- Flexible
- High temperature resistance

Epoxies

- Fast cure
- Toughened
- Flexible grades

Toughened Acrylics

- Rapid cure
- Low odour
- Pre-mixed
- Gap filling

UV Light Cured

- Glass / plastic bonding
- Optically clear
- Non-yellowing

Contact Permabond:

Europe: Tel. +44 (0)1962 711661
UK Helpline: 0800 975 9800
Deutschland: 0800 10 13 177
France: 0805 11 13 88
info.europe@permabond.com

US: Tel. +1 732-868-1372
Helpline: 800-640-7599
info.americas@permabond.com

Asia: Tel. +86 21 5773 4913
info.asia@permabond.com

www.permabond.com