

Features & Benefits

- 💧 Adhesion to a wide variety of substrates
- 💧 High strength and toughness
- 💧 Cures at low temperatures ($\geq 5^{\circ}\text{C}$)
- 💧 Easy to apply
- 💧 Fast setting
- 💧 Good resistance to water and moisture

Description

PERMABOND® ET503 is a two-part, fast-setting epoxy adhesive that bonds to a wide variety of substrates such as wood, metal, ceramics, and some plastics (e.g., ABS and polycarbonate). It cures rapidly at room temperature to provide working strength within 20 minutes. It is easy to apply and is resistant to water and humidity.

Physical Properties of Uncured Adhesive

	ET503A	ET503B
Chemical composition	Epoxy Resin	Amine Hardener
Appearance	White	Light Grey
Viscosity @ 25°C	17,000 mPa.s (cP)	13,000 mPa.s (cP)
Specific gravity	1.2	1.2

Typical Curing Properties

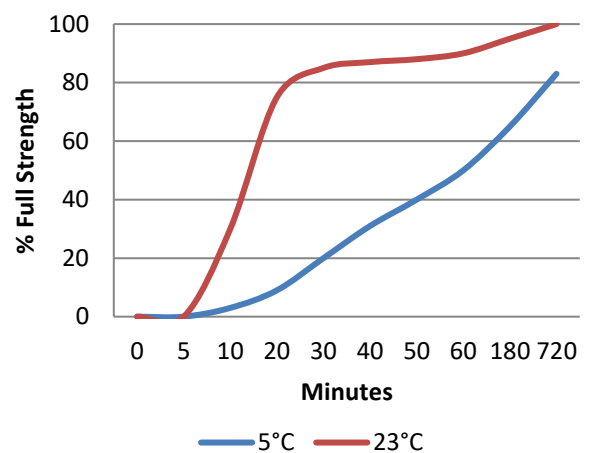
Mix ratio by volume	1:1
Maximum gap fill	1 mm <i>0.04 in</i>
Usable / pot life @23°C	5 mins
Fixture time @23°C	6 mins
Working strength @23°C	20 mins
Full cure @23°C	24 hours

Typical Performance of Cured Adhesive

Shear strength* (ISO4587)	Mild Steel: 20-26 N/mm ² (2900 - 3770 psi) Aluminium: 18-24 N/mm ² (2610 - 3480 psi) PVC: 5-8 N/mm ² (725 - 1160 psi) Polycarbonate: 5-8 N/mm ² (725 - 1160 psi) ABS: 5-8 N/mm ² (725 - 1160 psi)
Peel strength (aluminium) (ISO4578)	140-180 N/25mm (32-41 PIW)
Hardness (ISO868)	50 Shore D
Water absorption (7 days at 25°C)	0.8%

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

Strength Development



Graph shows typical strength development of bonded components. An increase of 8°C in temperature will halve the cure time. Lower temperatures will result in a slower cure time.

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