

Features & Benefits

- 💧 Adhesion to a wide variety of substrates
- 💧 Full cure at room temperature
- 💧 Easy to apply
- 💧 Semi-flexible
- 💧 Good impact strength

Description

PERMABOND® ET515 is a 1:1 mixable epoxy adhesive. **ET515** is a semi-flexible toughened adhesive with good adhesion to a variety of substrates such as wood, metal, ceramics and some plastics and composites. It's a relatively fast curing epoxy; reaching handling strength in 20-30 minutes. It is ideal for bonding different materials where differential thermal expansion is anticipated.

Physical Properties of Uncured Adhesive

	ET515A	ET515B
Chemical composition	Epoxy Resin	Polyamine Hardener
Appearance	Colourless	Colourless
Viscosity @ 25°C	20rpm: 10,000-20,000 mPa.s (cP)	20rpm: 14,000-24,000 mPa.s (cP)
Specific gravity	1.1	1.1

Typical Curing Properties

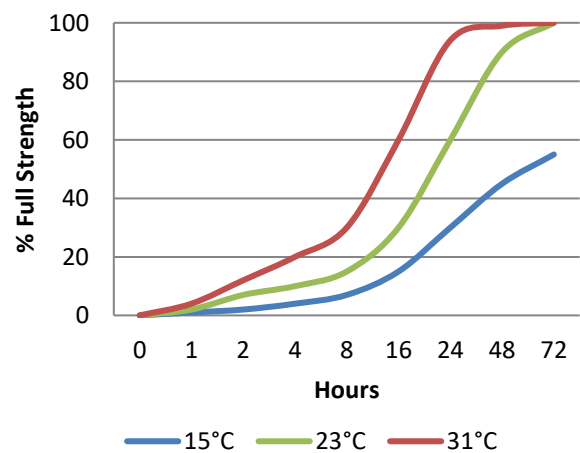
Mix ratio by volume	1:1
Maximum gap fill	2 mm 0.08 in
Usable / pot life @23°C	10-20 mins
Handling time @23°C	20-30 mins
Working strength @23°C	24 hours
Full cure @23°C	72 hours

Typical Performance of Cured Adhesive

Shear strength* (ISO4587)	Mild steel 8 - 12 N/mm ² (1200 - 1750psi) FRP Glass/Polyester 3-5 N/mm ² (400-700psi) FRP Glass/Epoxy 4-6 N/mm ² (600-900psi) Carbon Fibre 4-6 N/mm ² (600-900psi)
Peel strength (aluminium) (ISO4578)	70-90 N/25mm (16-20 PIW)
Hardness (ISO868)	30-50 Shore D
Elongation at break (ISO37)	20-40%
Glass transition temperature Tg	20°C (68°F)
Dielectric strength	15-25 kV/ mm
Thermal conductivity	0.34 W/(m.K)

*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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