

## MAGNET BONDING ADHESIVE - ES5516



**Permabond ES5516 is a dual-activation single-part epoxy adhesive that exhibits outstanding hot strength performance.**

Permabond ES5516 maintains an impressive structural bond strength at 180°C. This high temperature resistance makes it ideally suited to the bonding of class H electric motor magnets, including those in permanent magnet synchronous motors. Other uses include fixing any small close-fitting parts where there is no ability to mechanically clamp.

This adhesive is highly unique in that it has two forms of activation. UV light can 'tack' or seal the bond first, while heat will subsequently cure the assembly. This UV activation provides a 'tack strength' which helps to prevent outflows of adhesive from bonded joints prior to curing.

It is perfect for applications where accurate alignment is required, as components can be tacked in place before entering the heat-curing process.



### KEY FEATURES:

- ▶ Excellent hot structural strength performance at 180°C
- ▶ Toughened; high strength on metals & composites
- ▶ Lightly thixotropic for ease of application
- ▶ Good resistance to chemicals
- ▶ UV activation as well as heat cure
- ▶ High shear strength
- ▶ Excellent vibration resistance

### IDEAL FOR BONDING:

- Aluminium
- Carbon Fibre
- Ferrites & Magnets
- FRP
- Mild Steel
- PBT
- Stainless Steel
- Tin
- Zinc
- *And many more*





## DESCRIPTION

The following technical data for Permabond ES5516 is a guideline and does not constitute a specification. For full technical information, please refer to the technical data sheet, available at [www.permabond.com](http://www.permabond.com). Please contact Permabond to discuss your nylon bonding project.

	ES5516
Description	Single-part, UV-tacking epoxy with high heat resistance
Appearance	Ivory (uncured), yellow (cured)
Viscosity	4,500 (Thixo)
Max Gap Fill	0.5mm
Cure Speed (oven)	150°C - 1 hour
Hot strength	<b>Mild Steel:</b> @150°C: 18 N/mm @180°C: 8 N/mm @200°C: 5 N/mm <b>Aluminium:</b> @150°C: 15 N/mm @200°C: 8 N/mm
Shear Strength	<b>Mild Steel:</b> 23 N/mm <b>Aluminium:</b> 22 N/mm <b>Stainless Steel:</b> 29 N/mm
Temperature range	-40 to 200°C
Storage	2 to 7°C
Packaging	10 x 320ml



## TYPICAL APPLICATIONS:

- ▶ Electric motor magnet bonding, e.g. for automotive
- ▶ Sensors
- ▶ Boilers
- ▶ Heat Pumps
- ▶ Weaving and tooling machinery
- ▶ High temperature conveyors and pipelines

[WWW.PERMABOND.COM](http://WWW.PERMABOND.COM)

## Authorised distributor stamp:

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