# Permabond® Engineering Adhesives

#### PERMABOND® 130 UV

Light Cure Cyanoacrylate (Dual Cure)

Provisional Technical Datasheet

#### Features & Benefits

- Cures in shadow areas
- Good adhesion to metals and plastics
- Tack-free in seconds using UV torch (flashlight)
- Reduced odour, reduced bloom
- Good open time for accurate alignment
- Transparent in a thin layer
- Excellent environmental resistance
- Low hazard SDS

#### Description

PERMABOND® 130 UV is a low-viscosity, solvent-free, light cure cyanoacrylate adhesive. It is developed for applications where fast bonding between opaque substrates and tack-free fillets are needed. The UV light cure facilitates the curing, minimising the blooming effect, and allowing rapid bonding through transparent parts. When used as a UV-curable adhesive or coating, the moisture cure provides polymerisation in small shadow areas

### **Physical Properties of Uncured Adhesive**

Chemical composition	Ethyl cyanoacrylate
Appearance	Yellow before cure Clear in a thin bondline
Viscosity @ 25°C	200 mPa.s (cP)
Specific gravity	1.1

## **Typical Curing Properties**

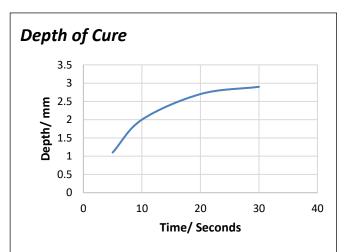
Open time (moisture cure only [22°C/50% RH])	NBR 3s EPDM 20s Stainless steel 30s Mild steel 30s Aluminum 30s Nylon 6 20s ABS 10s PC 40s PMMA 80s PETG 55s
Tack free time (UV cure)*	
Spot LED, 150 mW/cm², 405nm	≤1s
Spot LED, 25mW/cm <sup>2</sup> , 405nm	≤5s

<sup>\*</sup>The time depends on the power of the UV lamp, its spectral output, the distance between the lamp and the components..

# Typical Performance of Cured Adhesive

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Shear strength*	Abraded mild steel 12-17 N/mm² (1740 psi – 2465 psi) Stainless steel 14-19 N/mm² (2030 psi – 2755 psi) Aluminium 5-9 N/mm² (725 psi – 1305 psi) Polycarbonate 6-10 N/mm² (870 psi – 1450 psi) PMMA 7-11 N/mm² (1015 psi – 1595 psi) PA6 7-11 N/mm² (1015 psi – 1595 psi) PVC 8-12 N/mm² (1160 psi – 1740 psi) ABS 6-10 N/mm² (870 psi – 1450 psi)				
Hardness (ISO868)	70-80 Shore D				

<sup>\* 24</sup> hour moisture cure only. Higher strengths can be obtained on clear substrates using UV light secondary cure. Strength results will vary depending on the level of surface preparation and gap.



Graph shows the depth of cure at 25 mW/cm<sup>2</sup> and 405nm. The depth of cure will depend on the power of the UV lamp, its spectral output, the distance between the lamp and the adhesive.

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