

Permabond cyanoacrylate adhesives bring a wide variety of performance benefits to the production environment. These benefits include joining dissimilar and hard-to-bond materials, quick curing with very strong adhesion and a wide range of viscosities. Permabond one-part cyanoacrylates are a versatile solution for even the most demanding manufacturing and assembly applications.

How do Permabond cyanoacrylate adhesives work?

Permabond cyanoacrylate adhesives are one-part adhesives that cure by reacting with minute traces of moisture on the surface of the material being bonded. Permabond cyanoacrylates cure in seconds at ambient temperatures and have been formulated to bond flexible or rigid surfaces made from a wide range of plastics, rubbers or metals.

Permabond cyanoacrylates are available in a range of viscosities and material adhesion capabilities. These adhesives are formulated to bond a variety of porous and non-porous surfaces and to rigid or flexible materials.

Permabond Primers and Accelerators

- Permabond POP enhances adhesion to polyolefins.
- Permabond surface activators pre-treat acidic surfaces to facilitate and speed cure. They can also be used post application to quickly cure any exposed cyanoacrylate to eliminate blooming.

Permabond low and medium viscosity cyanoacrylate formulations provide:

- Superior bonding to plastic, wood and rubber materials.
- Excellent bond strength when joining metal to plastic, or rubber to metal.
- Inherent corrosion resistance; protects part assembly from degradation.

Permabond high viscosity cyanoacrylate adhesives provide:

- Formulations for use in vertical applications or on porous surfaces.
- Gap filling ability up to 0.5mm (.02 in.)
- Fast, 30-second cure time; speeds production rates.
- High-strength adhesion, up to 25MPa; shear strength exceeds that of many substrate materials.

Benefits

- One-part adhesive chemistry speeds application.
- Join dissimilar materials, such as rubber to metal, with no compromise in bond strength.
- Cures in seconds at room temperature; eliminates need for costly jigs or ovens; accelerates assembly rates.
- Gap fill up to 0.5mm (.02 in.)
- Solvent free; non flammable.
- Superior bond strength; often exceeds that of substrate material.
- High-temperature resistance of up to 250°C (480°F)
- Non-blooming, low odour, improves worker comfort.
- Impact resistant grades increase durability.



Product Data

Permabond Cyanoacrylate Adhesives Comparison Chart

This table represents a selection of the complete range of Permabond cyanoacrylate adhesives. For more detailed technical information and product Material Safety Data Sheets, visit www.permabond.com. To discuss your specific application requirements, call the Permabond Helpline and our technical advisors will recommend the best adhesive for you.

Grade	Features	Viscosity (mPa.s)	Maximum Gap Fill (mm)	Shear Strength Steel (MPa)	Handling Times (seconds)			Service Temperature (°C)	Approvals
					Rubber	Phenolic	Metal		
101	Low viscosity, penetrating grade	2-3	0.05	19-23	2-5	5-10	3-5	-55 to +80	
102	General purpose	70-90	0.15	19-23	5-10	10-15	10-15	-55 to +80	WRAS
105	Difficult rubbers (e.g. EPDM)	30-50	0.1	18-22	5-10	5-10	10-15	-55 to +80	WRAS
240	High viscosity, slow cure	1200-2500	0.4	21-25	15-20	15-20	15-20	-55 to +80	WRAS
731	Highly flexible, toughened	100-200	0.15	24-30	15-20	15-20	<30	-55 to +120	
735	Highly flexible, toughened, black	100-200	0.15	24-30	10-15	5-10	30-50	-55 to +120	
737	Toughened - impact and peel resistant, black.	2000-4000	0.5	19-23	10-15	5-10	15-20	-55 to +120	
791	Ultra fast cure, low viscosity	15-50	0.1	18-22	2-3	2-3	2-3	-55 to +80	
792	Ultra fast cure, general purpose	60-125	0.15	18-22	2-3	2-3	2-3	-55 to +120	
801	High temperature resistance	10-15	0.05	19-23	10-15	10-15	10-15	-55 to +130	
802	High temperature resistance	90-110	0.15	19-23	10-15	10-15	10-15	-55 to +160	
820	High temperature resistance	90-110	0.15	19-23	10-15	10-15	10-15	-55 to +200	
910	Metal bonding	70-90	0.15	23-29	10-15	10-15	10-15	-55 to +90	
920	High temperature resistance	70-90	0.15	19-23	10-15	10-15	15-20	-55 to +250*	
940	Low odour, low bloom	3-10	0.05	16-20	2-5	10-15	10-15	-55 to +80	
941	Low odour, low bloom	10-20	0.08	16-20	2-5	10-15	10-15	-55 to +80	
943	Low odour, low bloom	90-110	0.15	16-20	<5	5-10	10-15	-55 to +80	
947	Low odour, low bloom	900-1500	0.25	16-20	2-5	20-30	10-15	-55 to +80	
2010	Very fast cure, thixotropic	20rpm: 2000-2500 2rpm: 10,000-20,000	0.5	19-23	10-15	10-15	10-15	-55 to +80	WRAS
2011	Non-drip, non sag gel	Gel	0.5	20-24	5-10	5-10	5-10	-55 to +120	
2012	Low-odour gel	20 rpm: 10,000-25,000 2rpm: 50,000-150,000	0.5	16-20	< 30	< 30	< 30	-55 to +80	
2013	High temperature gel	20 rpm: 8,000-13,000 2rpm: 35,000-50,000	0.5	21-22	< 30	< 30	< 30	-55 to +160	
2050	High viscosity, flexible	1200-1800	0.2	16-20	5-10	5-10	10-15	-55 to +80	
POP	Polyolefin surface primer	0.6	For priming PE, PP, Silicone, PTFE before bonding with CA						
CSA	Surface activator	0.7	When using the cyanoacrylate adhesives to bond to acidic or porous surfaces, the use of Permabond CSA prior to bonding may be beneficial. Post assembly application of CSA-NF may also assist in the curing of adhesive fillets outside the bond area or in preventing the 'blooming' phenomenon sometimes associated with the use of this type of adhesive.						
CSA-NF	Non-blooming surface activator	1							

*Post cure required at high temperature

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