

Permabond 920 is the original allyl cyanoacrylate adhesive, specifically designed to provide the high temperature resistance required by certain applications. It provides excellent bond strengths on most metal surfaces and to a wide variety of plastic and rubber materials. Whilst a room temperature cure will give better temperature resistance than other cyanoacrylates, maximum performance (up to 250°C) will be achieved by using a post cure at 150°C for 2 hours.

Physical Properties

Chemical Type	Allyl cyanoacrylate
Colour	Colourless
Viscosity	100 mPa.s
Density	1.05

Typical Performance

Gap Fill		0.125mm
Handling Time [†]	Rubber	15 seconds
	Plastic	15 seconds
	Metal	20 seconds
Full Strength		4 hours
Tensile Strength	ASTM D-2095	30 MPa (steel)
Service Temperature *		-30 to +250°C

[†]Handling times can be affected by temperature, humidity and specific surfaces being bonded. Larger gaps or acidic surfaces will also reduce cure speed but this can be overcome by the use of Permabond C Surface Activator(CSA).

*Higher temperatures may be endured for short periods providing the parts are not unduly stressed.

Surface Preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Permabond Cleaner A is recommended for the degreasing of most surfaces. Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth (or similar), to remove the oxide layer.

Adhesive Application

- Apply the adhesive sparingly to one surface (usually 1 drop is sufficient). Bring the components together quickly and correctly aligned.
- Apply sufficient pressure to ensure the adhesive spreads into a thin film.
- Do not disturb or re-align until curing is achieved, normally in a few seconds.
- Any surplus adhesive can be removed with Permabond Cleaner A.
- To optimise the high temperature resistance of the adhesive, post-cure at 150°C for two hours.

NB:

- For difficult or porous surfaces, Permabond CSA activator is recommended.
- If bonding polypropylene, polyethylene, PTFE or silicone, prime first with Permabond Polyolefin Primer.

Storage and Handling

Storage Temperature	5 to 7°C
Shelf Life Stored in original unopened containers	9 months

Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene. Full information can be obtained from the Material Safety Data Sheet.

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