

A1046 Anaerobic Adhesive

Perma-Lok A1046 is a rapid curing adhesive designed to provide permanent locking and sealing of metal parts such as bearings, gears, pulleys and threaded components. It exhibits high strength and excellent durability, even under the most arduous conditions. Perma-Lok A1046 helps joints resist vibration, fatigue and fretting corrosion, which allows machining tolerances to be relaxed and mechanical locking devices to be eliminated. Perma-Lok A1046 will help reduce processing costs.



A1046 is ideal for permanent thread-locking or retaining applications

- Single part room temperature curing
- Easy to use
- Solvent free
- High strength
- Quick curing

Summary:
Fast Curing
High Strength
Threadlocker/Retainer

PHYSICAL PROPERTIES

Colour	Green
Viscosity @25°C	9000 mPa.s Thixotropic
Maximum Gap Fill	0.25 mm
Density	1.07

TYPICAL PROPERTIES

Handling Time	5-10 minutes
Working Strength	30 minutes
Full Strength	24 hours
Shear Strength	25 MPa
Torque Strength (M8 nuts & Bolts)	25 Nm
Temperature Range	-55 to +150°C

Cure times are typical for steel at 23°C (73°F). Copper and its alloys will be faster while oxidised or passivated surfaces like stainless steel will be slower. Temperature will also effect the cure - for every 8°C (15°F) rise in temperature you halve the times given; for every 8°C (15°F) drop in temperature, the stated cure time doubles.

TEMPERATURE RESISTANCE

Thermal resistance is excellent between -55 and 150°C. Heating causes the adhesive to soften but strength is regained on cooling provided 150°C is not exceeded for prolonged periods.

A1046 is resistant to a variety of chemicals such as water, oils, fuels and refrigerants, although very aggressive environments such as strong acids, alkalis and very polar solvents should be avoided.

A1046 should not be used in pure oxygen systems.

Storage and Handling

When stored in the original unopened containers at 5-25°C, the shelf life of this product is two years from the date of despatch from Permabond.

Please also read the Material Safety Data Sheet. Users are reminded that all materials, whether innocuous or not, should be handled according to the principles of good industrial hygiene.

Directions for use:

- ▶ Surfaces should be clean, dry and grease free prior to bonding. Abrading and degreasing the surface will give a much stronger bond. (MEK or similar solvent can be used to degrease surfaces.)
- ▶ If bonding unreactive metals such as aluminium, titanium or zinc, we would recommend using Permabond A905 surface conditioner.
- ▶ Apply adhesive to the leading edge of both male and female components and assemble parts.
- ▶ Allow the adhesive to cure before exposing to chemicals / pressure etc. (See cure speed section.)

Other Products in the Permabond Range...

Cyanoacrylate adhesives...

General purpose
Low bloom / Low odour
High temperature resistance
Metal bonding
Flexible
Toughened



We also have a new polyolefin primer for pre-treating polypropylene, polyethylene, PTFE. For use with cyanoacrylate adhesive.



Anaerobic adhesives...

Threadlocking
Pipe-sealing
Retaining
High temperature resistance
Toughened
Variety of viscosities and strengths available

If you require help with an application, please contact the Permabond team for technical advice on surface preparation, joint design, adhesive selection and how to optimise your production process.

The information given and the recommendations made herein are based on our experience and are believed to be accurate. No guarantee as to, or responsibility for, their accuracy can be given or accepted, however, and no statement herein is to be treated as a representation or warranty. In every case we urge and recommend that purchasers, before using any product, make their own tests to determine, to their own satisfaction, its suitability for their particular purposes under their own operating conditions.

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Engineering Adhesives

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