

Features & Benefits

- 💧 Instant pressure seal
- 💧 Seals to burst rating of pipe
- 💧 Slow curing – allows accurate adjustment

Description

Permabond LH056 is a thread sealant designed for use in sealing metal pipes and fittings in sprinkler systems which may also contain CPVC piping. Permabond LH056 prevents leaks even on pipes that are not completely seated. This anaerobically curing thread sealant forms an instant seal. Once fully cured, the seal will generally surpass the burst rating of most piping systems. In addition, it locks the pipes, plugs, or fittings against vibration loosening, tampering, and variable temperature effects.

Permabond LH056 is FBC™ System Compatible.



FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® pipe and fittings. FBC, FlowGuard Gold, BlazeMaster and Corzan are licensed trademarks of The Lubrizol Corporation.

Physical Properties of Uncured Adhesive

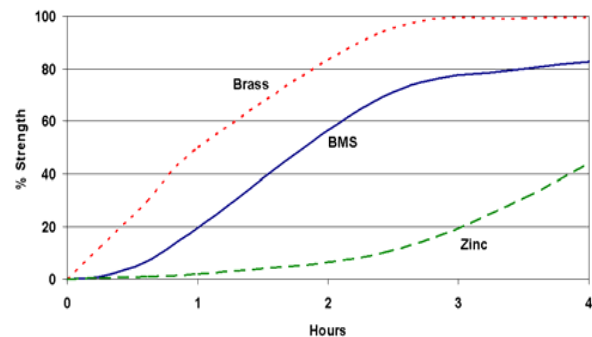
Chemical composition	Acrylic
Appearance	White
Viscosity @ 25°C	90,000– 150,000 mPa.s (cP) Thixotropic

Typical Curing Properties

Maximum gap fill	0.5 mm 0.02 in
Fixture time (brass)*	30 - 60 minutes
Fixture time (black iron)*	1-2 hours
Full strength	24 hours

*Fixture time at 23°C / 73°F. Copper and its alloys will make the adhesive cure more quickly, while oxidised or passivated surfaces (like stainless steel) will reduce cure speed. To reduce curing time, use Permabond activator A905 or ASC10. Alternatively, increasing the curing temperature will reduce curing time.

Strength Development



Cure times are typical at 23°C. Copper and its alloys will follow the faster cure while oxidized or passivated surfaces like stainless steel will tend towards the slower curve. Lower temperatures or large gaps will tend to extend the cure time. To reduce the cure time the use of Permabond A905, ASC10, or heat can be considered.

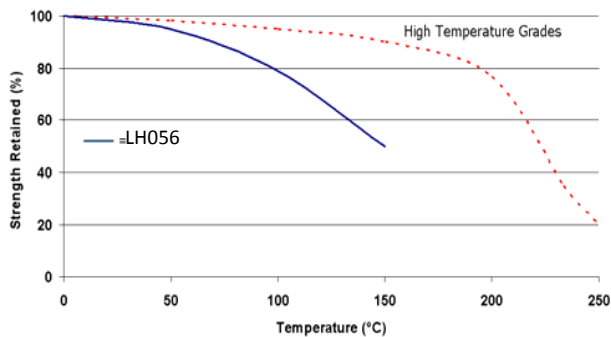
Typical Performance of Cured Adhesive

Torque strength (3/8 black iron pipe)	Break 6 Nm 50 in.lb Prevail 3 Nm 25 in.lb
Coefficient of thermal expansion	90 x 10 ⁻⁶ mm/mm/°C
Thermal conductivity	0.19 W/(m.K)

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.

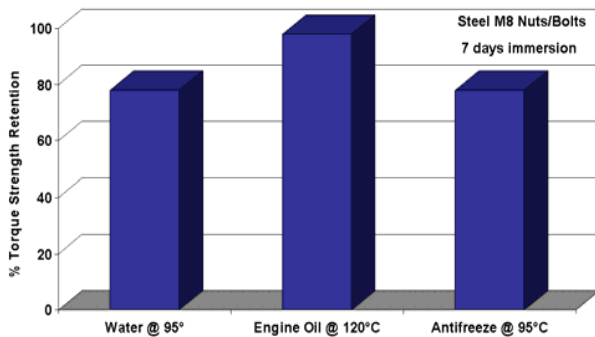
Temperature Resistance



"Hot strength" shear strength tests performed on mild steel. 24hr cure at room temperature and conditioned to pull temperature for 30 minutes before testing.

LH056 can withstand higher temperatures for brief periods (such as for paint baking and wave soldering processes) providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed to is -55°C (-65°F) depending on the materials being bonded.

Chemical Resistance



This product is not recommended for use in contact with steam, strong oxidizing materials and polar solvents although it will withstand a solvent wash without any bond strength deterioration.

Surface Preparation

Though the anaerobic adhesives will tolerate a slight degree of surface contamination, best results are obtained on clean, dry and grease free surfaces. The use of a suitable solvent-based cleaner (such as acetone or isopropanol) is recommended.

In general, roughened surfaces (~25µm) give higher bond strengths than polished or ground surfaces.

To reduce the curing time, especially on inactive surfaces (such as zinc, aluminum and stainless steel), the use of Permabond A905 or ASC10 can be considered.

Directions for Use

1. Apply the sealant 360° around leading threads of the male fitting leaving the first thread free of sealant. Force the material into all the voids. Adjust amount of sealant according to the size of the fitting. For large diameter pipe, sealant may have to be applied to the female threads also to insure complete coverage.
2. Assemble and tighten the fittings until proper alignment is obtained. Visually check for a small bead of sealant around the entire circumference of the pipe.
3. A seal to moderate pressure is obtained immediately on properly tightened fittings. Allow the sealant to cure for at least 24 hours to obtain maximum pressure and chemical resistance.

Storage & Handling

Storage Temperature	5 to 25°C (41 to 77°F)
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.	

Contact Permabond:

Europe: Tel. +44 (0)1962 711661
 UK Helpline: 0800 975 9800
 Deutschland: 0800 10 13 177
 France: 0805 11 13 88
 info.europe@permabond.com

US: Tel. +1 732-868-1372
 Helpline: 800-640-7599
 info.americas@permabond.com
Asia: Tel. +86 21 5773 4913
 info.asia@permabond.com

www.permabond.com

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full-scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.