

Technical data sheet



Product: A126

Manufacturer: PERMABOND ENGINEERING ADHESIVES

Product group: KLEBSTOFF

Article group: ANAEROB

Download: 04.05.2024

PERMABOND® A126

This data sheet was provided to you by Tewipack Uhl GmbH. The company tewipack Uhl GmbH assumes no responsibility for the topicality and the Accuracy of the information contained. The properties of the products can vary due to various influences such as composition and condition of the Substrate, impurities in or on the substrate, temperature and humidity at the Change storage and environmental conditions during use. Using this product in combination with other material, the customer is responsible for to check through our own tests whether the product is suitable for the planned combination and whether this combination delivers the expected results

Tewipack Uhl GmbH
Industriestraße 15
D-75382 Althengstett

Telephone:
+49(0)7051/9297-0
Fax:
+49(0)7051/9297-99

E-Mail:
info@tewipack.de
Website:
www.tewipack.de

Managing director:
Alexander Uhl,
Michael Uhl
HRB 330424
Amtsgericht
Stuttgart

Bank details:
Sparkasse
Sindelfingen
Pforzheim
Calw
BLZ 666 500
85
Konto 17 787

Commerzbank
Sindelfingen
BLZ 603 400 71
Konto 8 001 166

Vereinigte
Volksbank AG
Böblingen
BLZ 603 900 00
Konto 80 089
003

Postbank
Stuttgart
BLZ 600 100
70
Konto 146
294 708

Features & Benefits

- Vibration resistant
- Can be applied post-assembly
- Improved fatigue life
- Seals porosity in welds and castings

Description

Permabond® A126 is a high-strength anaerobic adhesive for permanent assembly of coaxial assemblies or threaded metal components. The exceptionally low viscosity of this product makes it ideal for use on tight fitting components or where the adhesive needs to be applied after assembly. In addition it may also be used to seal porosity in welds or castings.

Physical Properties of Uncured Adhesive

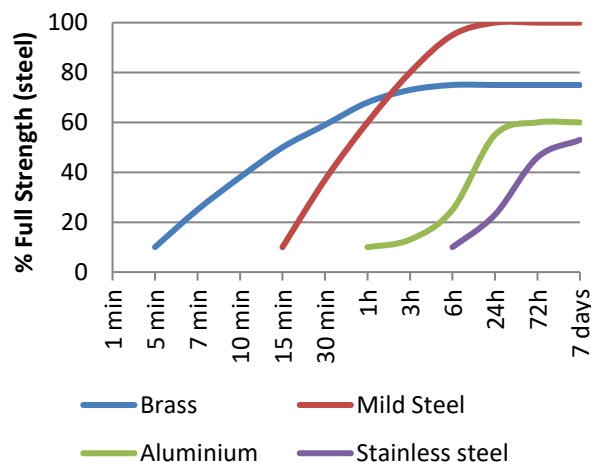
Chemical composition	Acrylic
Appearance	Green
Viscosity @ 25°C	10-30 mPa.s (cP)
Specific Gravity	1.0
UV fluorescence	Yes

Typical Curing Properties

Maximum gap fill	0.05 mm 0.001 in
Maximum thread size	M10 ½"
Time taken to reach handling strength (M10 steel) @23°C	15 minutes*
Time taken to reach working strength (M10 steel) @23°C	1 hour
Full strength (M10 steel) @23°C	24 hours

*Handling 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 oxidised 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.

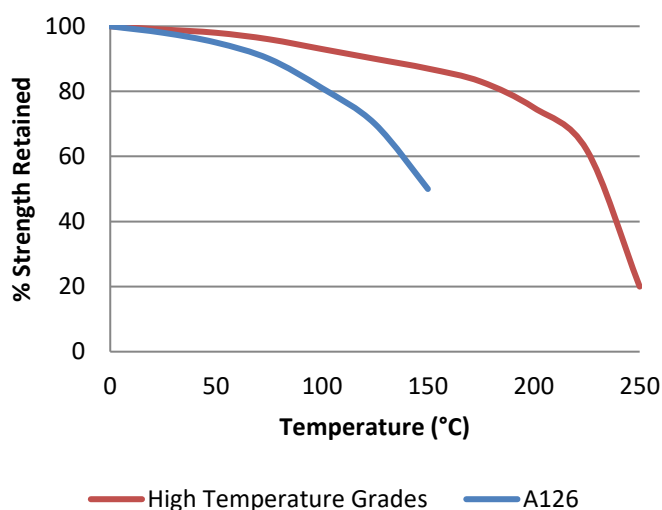
Typical Performance of Cured Adhesive

Torque strength (M10 steel ISO10964)	Break 14 N·m 125 in.lb Prevail 34 N·m 300 in.lb
Shear strength (steel collar & pin ISO10123)	10-20 MPa 1450-2900 psi
Coefficient of thermal expansion	90 x 10 ⁻⁶ mm/mm/°C
Dielectric strength	11 kV/mm
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.

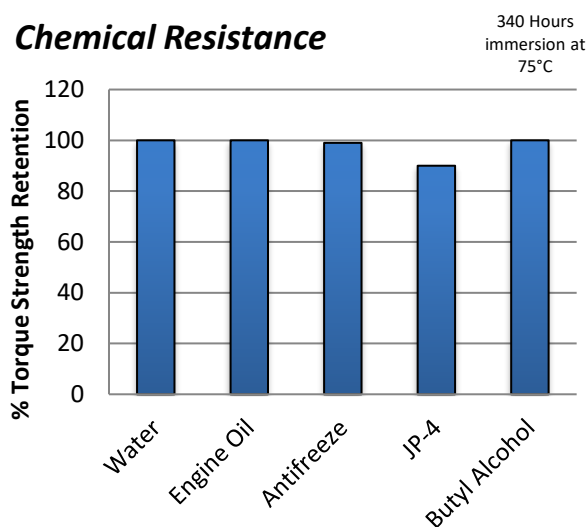
Hot Strength



"Hot strength" Breakaway strength on M10 Zinc plated bolts according to ISO 10964. Cured at 23°C for 24 hours then conditioned for 30 minutes at testing temperature.

A126 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 oxygen, oxygen rich systems and other strong oxidizing materials. This product may adversely affect some thermoplastics and users must check compatibility of the product with such substrates before using.

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, aluminium and stainless steel), the use of Permabond A905 or ASC10 can be considered.

Directions for Use

For use as retainer:

- 1) Apply a circumferential bead; preferentially to the female component. Assemble with a twisting action. Can be post applied to assembled parts.
- 2) For larger components use thixotropic products to prevent run off.
- 3) Take care to ensure adhesive does not enter ball races or other mechanisms.

For use as threadlocker:

- 1) Due to the wicking viscosity of the adhesive, it can be post-applied (so nuts and bolts already assembled). Apply adhesive to the juncture where the nut and bolt meet.
- 2) For blind holes apply several drops down the internal threads into the bottom of the hole.

For use as porosity sealant:

- 1) Expose the weld. Remove dirt, rust, scale, and/or paint from the weld area to expose the metal surface.
- 2) Bleed the system of all water and pressure to allow the A126 to wick into the porosities.
- 3) Heat the area to 50°C (120°F) or higher. Using heat will expand and activate the metal as well as evaporate any water. **HEAT SHOULD NOT BE USED WITH A CHEMICAL SYSTEM.** Consult the MSDS for information on the flash point, flammability and heat stability of the chemicals involved.
- 4) Apply A126 to the warm welds with a brush, swab or clean rag. Wet the area thoroughly with the product so that it can wick into all the open areas within the metal and form a new seal.
- 5) If the porosity is large or there are several pin-holes in the same area, several applications may be necessary to maximize the amount of A126

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.

Permabond A126

Global TDS Revision 7

14 October 2016

Page 2/3

FOR PROFESSIONAL OR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN

that wicks into the voids to assure a permanent seal.

- 6) Within five to ten minutes the product should cure with the capability of handling a low pressure. Within an hour it should be able to handle 200psi to 500psi of pressure. Recharging of a sprinkler system can be done after that period.
- 7) After an hour wipe away any surface residue.

Video Links

Retaining compound directions for use:

<https://youtu.be/MUODE5ZfrZ8>



Threadlocker directions for use:

<https://youtu.be/7144nHEDYI8>



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 Safety Data Sheet.	

This Technical Datasheet (TDS) offers guideline information and does not constitute a specification.

Other Products Available

Anaerobics

- Thread lockers ■ Thread sealants
- Gasket makers ■ Sealants / retainers

Cyanoacrylates

- Instant adhesives
- For rapid bonding of metals, plastics, rubber and many other materials

Epoxies

- Two-part room temperature cure adhesives
 - Single-part heat cure adhesives
- Modified Technology (MT) flexible grades available

MS-Polymers

- Single-part, moisture-curing, flexible sealants

Polyurethanes

- Two-part room temperature curing adhesives

Toughened Acrylics

- Rapid curing, high strength structural adhesives

UV Light Cured Adhesives

- Glass / plastic bonding
 - Optically clear
 - Non-yellowing

www.permabond.com

• UK: 0800 975 9800

• General Enquiries: +44 (0)1962 711661

• US: 732-868-1372

• Asia: + 86 21 5773 4913

info.europe@permabond.com

info.americas@permabond.com

info.asia@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.

Permabond A126

Global TDS Revision 7

14 October 2016

Page 3/3

FOR PROFESSIONAL OR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN