

Features & Benefits

- Adhesion to a wide variety of substrates
- Cures at room temperature
- Easy 1:1 mix ratio
- Good resistance to impact and vibration

Description

PERMABOND® PT328 is a 2-part, room temperature curing polyurethane adhesive. It is ideal for use on a wide variety of substrate materials including metals, plastics and composites. Its long pot life makes it suitable for covering large areas. It has excellent environmental and chemical resistance.

Physical Properties of Uncured Adhesive

	PT328 A	PT328 B
Chemical composition	Polyurethane	Polyurethane
Appearance	Black	Amber
Viscosity @ 25°C	2000-8000 mPa.s Thixotropic	3000-9000 mPa.s Thixotropic
Density	1.25	1.4

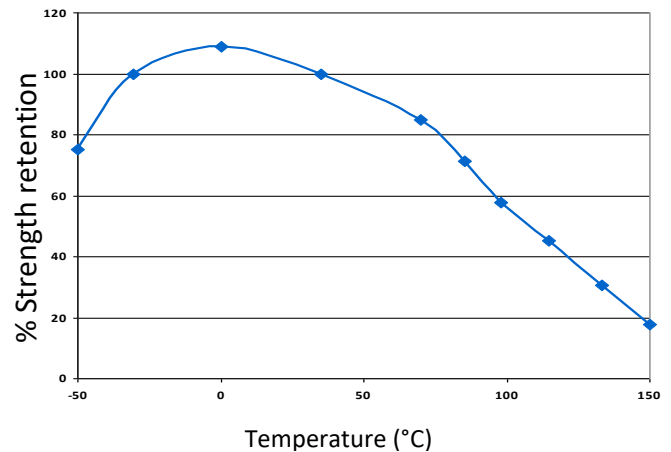
Typical Curing Properties

Ratio of use	1 : 1
Maximum gap fill	5 mm (0.2 in)
Pot life	15-20 minutes
Handling time	90-120 minutes
Full cure	5-7 days

Typical Performance of Cured Adhesive

Shear strength (zinc) ISO4587	Zinc: 5-6 MPa (700-900 psi) Steel: 11-16 MPa (1600-2300psi) FRP Glass Epoxy: 5-7 N/mm ² (700-1000psi) FRP Glass Polyester: 12-14 N/mm ² (1700-2000psi) Carbon Fibre: 9-11 N/mm ² (1300-1600psi)
180° Peel strength (rubber/leather)	3.2 N/25mm (substrate failure)
Tensile strength DIN53504	10-20 MPa (1450-2900 psi)
Elongation at break DIN53504	10-20%
Hardness ISO868	68 Shore D
Coefficient of thermal expansion (ASTM D-696)	85 x 10 ⁻⁶ 1/K
Peel strength (aluminium)	150-170 N/25mm

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.

PT328 can withstand higher temperatures for brief periods providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed

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.

to is -40°C (-40°F) depending on the materials being bonded.

Additional Information

This product is not recommended for use in contact with strong oxidizing materials. This product may affect some thermoplastics and users must check compatibility of the product with such substrates.

Information regarding the safe handling of this material may be obtained from the material safety data sheet (MSDS).

Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene.

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.

Directions for Use

- 1) Surfaces must be clean, dry and grease-free prior to bonding.
- 2) Shake cartridge (or stir bulk material) before use if separation has occurred.
- 3) Apply a thin bead of adhesive pre-mixed through a static mixer nozzle. (Alternatively bulk material can be dispensed via metered dispensing equipment).
- 4) Assemble components and clamp.
- 5) Maintain pressure until handling strength is achieved.
- 6) Allow 24 hours for adhesive to fully cure. Accelerated cure times may be achieved by heating.

Storage & Handling

Storage Temperature	15 to 25°C <i>(60 to 77°F)</i>
Shelf Life Stored in original unopened containers	6 months

Due to separation (common in Polyurethane adhesives) it may be necessary to shake or stir product thoroughly before use.

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.