

Technical data sheet



Product: TW42

Manufacturer: PERMABOND ENGINEERING ADHESIVES

Product group: KLEBSTOFF

Article group: 2-K KLEBSTOFF

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PERMABOND® TW42

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Features & Benefits

- Adhesion to difficult substrates
- Full cure at room temperature
- Good resistance to chemicals
- Easy to mix

Description

PERMABOND® TW42 is a high performance two-part epoxy adhesive with a soft paste consistency specifically designed to bond metal bars to printing blankets. When fully cured TW42 exhibits excellent temperature and chemical resistance as well as exceptional adhesion to difficult to bond substrates. The controlled flow properties as well as its ease of mixing and application enable the adhesive to be used where gap filling is required.

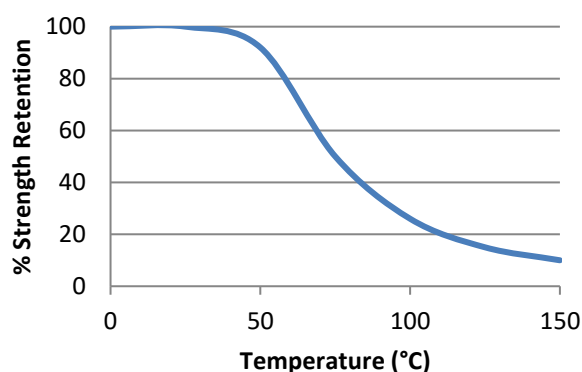
Physical Properties of Uncured Adhesive

	TW42A	TW42B
Chemical composition	Epoxy Resin	Polyamine Hardener
Appearance	White	Grey
Viscosity @ 25°C	20rpm: 50,000-100,000 mPa.s 2rpm: 350,000-600,000 mPa.s	20rpm: 40,000-90,000 mPa.s 2rpm: 250,000-500,000 mPa.s
Specific gravity	1.24	1.55

Typical Curing Properties

Mix ratio	1:1 by volume 100:120 by weight
Maximum gap fill	5 mm
Usable / pot life @23°C	3 hours
Working strength	@23°C : 12 hours @60°C: 1 hour
Full cure	@23°C: 72 hours @60°C: 2 hours

Hot Strength



"Hot strength" shear strength tests performed on mild steel. Fully cured specimens conditioned to pull temperature for 30 minutes before testing at temperature.

TW42 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 -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.

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

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. Use a suitable solvent (such as acetone or isopropanol) for the degreasing of 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.

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Directions for Use

1. Dual cartridges:
 - a) Insert the cartridge into the application gun and guide the plunger into the cartridge.
 - b) Remove the cartridge cap and dispense material until both sides are flowing.
 - c) Attach the static mixer to the end of the cartridge and begin dispensing the material. Ensure product is fully mixed (grey with no streaks).
2. Apply material to one of the substrates.
3. Join the parts. Parts must be joined within 3 hours of mixing the two epoxy components.
4. Large quantities and/or higher temperature will decrease the usable life or pot life.
5. Apply pressure to the assembly by clamping for 12 hours or until handling strength is obtained.
6. Full cure will be obtained after 72 hours at 23°C.

Storage & Handling

Storage Temperature	5 to 25°C
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Distributed via tewipack Uhl GmbH.

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

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