Permabond F246
Toughened Acrylic Adhesive
Technical Information Sheet

Description:

Permabond F246 is a 2 part -'no-mix' adhesive which cures rapidly at room temperature. Its exceptional resistance to peel, fatigue and impact loads on a wide variety of surfaces, combined with excellent environmental durability and chemical resistance, make it ideal for applications demanding structural integrity. This outstanding performance can allow the adhesive to be used in place of rivets and/or welding thereby providing reduced assembly times, lighter structures and an improved aesthetic appearance.

Physical Properties

Colour	Off White
Viscosity (mPa.s)	30,000
Specific Gravity	1.00

Typical Performance

Shear Strength (MPa)	35
180°Peel Strength (N/25mm)	150
Maximum Gap Fill (mm)	0.75

Storage:

When stored in the original unopened containers at 5 - 25°C, the shelf life of this product is 9 months from the date of despatch from Permabond.

The adhesive and Initiator should be stored in original containers with caps/lids tightly fitted and out of direct sunlight. Never pour material back into the container once dispensed.

Service Temperature:

The recommended service temperature range for this product is -60 to +120°C. However higher temperatures may be endured for short periods providing the adhesive is not unduly stressed.

Handling:

Full information can be obtained from the Material Data Sheets (MSDS). Users are reminded that all materials, whether innocuous or not, should be handled according to the principles of good industrial hygiene.

Cure Speed:

	Initiator No.	Initiator No.
Handling Strength	2-5 mins.	30-60 secs
Full Strength	24 hrs.	24 hrs.

These figures are typical for steel surfaces at 23°C. Copper and its alloys will give a faster cure whilst oxidised or passivated surfaces such as stainless steel or zinc will require longer cure times. Lower temperatures or large gaps will also tend to extend the cure time.

Directions for Use:

These toughened acrylic adhesives will tolerate a degree of surface contamination but for ultimate performance light abrasion (i.e. Emery Cloth or Shot Blasting) is recommended. An in-process quality check of the surface preparation process can be provided by using **Permabond SIP** to ensure consistant results and to further enhance the environmental durability of the joint.

Apply the Initiator sparingly to one surface. (Excess does not give a faster cure but it may reduce the final bond strength). If bonding porous surfaces then apply the Initiator to the porous surface.

Apply the adhesive to the second surface as a bead. Ensure that sufficient adhesive is applied to completely fill the joi

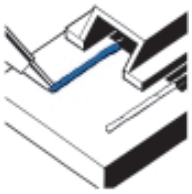
Apply light clamping pressure whilst the adhesive develops handling strength.

F246 must be applied as a bead - do not spread or comb out the adhesive as this will result in reduced bond strength. The maximum on-part life of F246 is 5 minutes and assembly must occur within this time if ultimate performance is to be achieved.

* Values shown are typical and should not be used for specification writing purposes. Please contact Permabond for assistance in writing specifications covering Permabond products.

09/04/2001

Additional Products in the Permabond Range

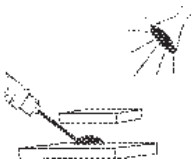


Toughened Acrylics

For structural bonding of engineering materials, such as metal, glass, ceramic and reinforced plastic, where high stress may be encountered. Often used to replace traditional jointing methods such as riveting and welding

Epoxy Resins

Single part epoxies for maximum performance, chemical and temperature resistance. Two part epoxies for versatility, as a wide variety of materials can be bonded. Particularly suitable where large surface areas or large gaps need to be filled.



UV Curing

A range of adhesives specially developed for a wide selection of glass bonding and electronic assembly applications.

Metal Repair

For the repair of holes and cracks etc., in metalwork. Particularly useful for reclaiming damaged pipes, castings, flanges or metallic vessels.

Anaerobics

For locking and sealing of metal parts, replacing traditional time consuming and expensive techniques. Typical applications include threadlocking, pipesealing, gasketing and retaining.

Cyanoacrylates

For rapid bonding of many different materials including plastics and rubbers, helping to speed up production lines or reduce maintenance down time.

TDS04/01

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