

MXBON® 21417

PRODUCT DESCRIPTION

The Mxbon® 21417 is α -cyanoacrylate adhesive, and it is designed for temporary bonding applications. It is a low strength product used in applications where minimum adhesion is required. Bonded parts can be debonded ultrasonically by immersion in detergent solution; by heat or, in some cases, by impact

TYPICAL PROPERTIES OF UNCURED MATERIAL

Base	Ethyl 2-Cyanoacrylate
Appearance (uncured)	Transparent, colorless to yellowish colored liquid
Components	Single part – requires no mixing
Specific Gravity @ 25°C	1.05
Cure	Moisture
Flash point	See SDS
Application	Temporary bonding
Viscosity, Brookfield @25°C mPa · s (cP)	3-8 (ISO 3104/3105)
Service temperature range	-54~100°C (-65~212°F)
Full cure (hrs)	24
Shelf life	12 months unopened when stored at 2-8°C

*Keep in a cool area out of direct sunlight. Refrigeration to 2-8°C gives optimum storage stability. When stored in a refrigerator, allow the adhesive to gradually warm to room temperature prior to use. It will prevent condensation inside the bottle which can reduce shelf life. Containers should be tightly sealed when not in use. The shelf-life is 12 months from date of manufacture.

TYPICAL CURING PERFORMANCE

The rate of cure can be affected by temperature, humidity, the smoothness of the surface, the closeness of the surface and specific surfaces being bonded. Although full functional strength is developed in a relatively short time, curing continues for at least 24 hours before full chemical/solvent resistance is developed.

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 24 hrs @ 25°C

Lap Shear Strength, ISO 4587/ASTM D1002/JIS K6850

Bonding Identical Substrate	kgf/cm ²	N/mm ²	psi
GBMS (Grit Blasted Mild Steel)	29.7	2.9	422.1

Important Notice: Strength results will vary depending on the level of surface preparation and gap.

Physical Properties

Cured for 24 hrs @ 25°C

Melting Point	140 to 150
Glass Transition Temperature, ISO 11359-2, °C	150
Hardness, ISO 868, Shore D	70

GENERAL INFORMATION

Additional information

This product is not recommended for use in contact with strong oxidizing materials and polar solvents. 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 (SDS).

Directions for use:

- 1) Make sure the surfaces to be bonded are clean, dry and grease-free before applying the adhesive.
- 2) Dispense a drop or drops to one surface only.
- 3) Bring the components together quickly and correctly aligned.
- 4) Apply sufficient pressure to ensure the adhesive spreads into a thin film.
- 5) Do not disturb or re-align until sufficient strength is achieved.
- 6) Allow adhesive to cure for 15 - 20 minutes minimum before

processing.

Debonding Methods

Ultrasonic Immersion Debonding:

- 1) Mix a 10% to 15% solution of detergent and water.
- 2) Heat solution to 80°C to 88°C for best results.
- 3) Use an ultrasonic tank having a power rating of 13W/l minimum for best results. Consult an ultrasonic tank supplier for the most efficient tank, depending on part and holder mass.
- 4) Place an adequate amount of solution in ultrasonic tank to cover area where debonding is required.
- 5) For maximum exposure, parts may be suspended in solution.
- 6) Ultrasonically vibrate parts until debonding occurs, generally within five minutes. Debonding time varies with type of mass materials, ultrasonic power and solution temperature.
- 7) Periodically verify solution pH is greater than 10.

Heat Debonding:

- 1) Place parts in a radiant heat oven or induction heat until bondline temperature reaches 135°C. Parts should be separated at elevated temperature.
- 2) If excess adhesive remains, clean parts with acetone.

Clean-up

When large quantities of cyanoacrylate adhesive are accidentally spilled, the area should be flooded with water which will cause the liquid cyanoacrylate to cure. The cured material can then be scraped from the surface

Storage

Keep in a cool area out of direct sunlight. Refrigeration to 2-8°C gives optimum storage stability. When stored in a refrigerator, allow the adhesive to gradually warm to room temperature prior to use. It will prevent condensation inside the bottle which can reduce shelf life. Containers should be tightly sealed when not in use. Product removed from containers may be contaminated during use. Do not pour back any product to the original container. Misuse of product will void all warranties. The shelf-life is 12 months from date of manufacture.

PRECAUTIONS

- 1) Use with proper ventilation. Avoid contact with skin and eyes.
- 2) If contact with skin occurs, rinse with warm water or dissolve gradually with solvent such as acetone or nitromethane. Do not try to remove forcibly.
- 3) If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
- 4) Keep well out of reach of children.
- 5) Keep adhesive in a cool, dry location and out of direct sunlight. For long-term storage, refrigeration(2-8°C) is recommended.
- 6) When take out the product from refrigerator, please allow adhesive to reach room temperature before opening bottle to prevent condensation inside the bottle which can reduce shelf life.

Important Notice:

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