

CLEAR METAL BONDER PART NO. 45100

DESCRIPTION

Dynatex® Clear Metal Bonder is a single component, low viscosity methyl cyanoacrylate adhesive. Formulated for metal, ceramic, and ferrite bonding. Offers superior solvent and chemical resistance.

PHYSICAL PROPERTIES

MONOMER (Liquid)

Base Compound	Methyl Cyanoacrylate
Appearance.....	Colorless Liquid
Viscosity (cps @ 68°F)	90 cP
Specific Gravity (g/cc).....	1.09
Flash Point (TCC)	176°F
Shelf Life @ 40°F.....	One year in unopened containers
Military Specifications.....	Mil-A-46050C Type II, Class 1

CURING PROPERTIES

Ambient surface moisture will initiate the hardening process. Handling strength is reached in a short period of time and varies depending on environmental conditions and substrates being bonded. Product will continue to cure for at least 24 hours before full strength and resistances are developed.

Setting Time (68 F, 65% R.H.)

Steel	5 to 10 seconds
Aluminum	7 to 14 seconds
Neoprene.....	<8 seconds
ABS	N/A
Polycarbonate	N/A
PVC	N/A

CURING PERFORMANCE

The gap of the bond line will affect set speed. Smaller gaps tend to increase the speed. Activators can be applied to improve set speed but may also impair overall adhesive performance.

POLYMER (Cured)

Appearance.....	Colorless Solid
Service Temperature Range	-65 ⁰ F to 185 ⁰ F
Softening Point.....	329 ⁰ F
Refractive Index (ND 20)	1.49
Full Cure Time.....	24 Hours
Dielectric Strength KV/mm	12.5
Dielectric Constant @ 1Kc	5.8
Coefficient of Thermal Expansion (in./in./F)000126
Tensile Strength (Steel/Steel)	3400 psi
Solubility.....	Nitromethane, Acetone, Dimethylformamide

Performance of Cured Materials

(Tensile shear strength, cured for 48 hours @ 20-25⁰C (68-77⁰F)

Substrate	Range in N/mm2
Blasted Steel	19 to 26
Etched Aluminum	12 to 20
Neoprene.....	>10

CHEMICAL RESISTANCE

Sheer strength on steel after 12 month soak

Solvent	% Strength Retained
Motor Oil	100
Gasoline	100
Trichloroethane.....	100
Freon TA	100
10% NaOH	0
10% Hcl	0
Water	0

GENERAL DIRECTIONS

1. Make sure the surfaces to be bonded are clean and dry.
2. Dispense a drop or drops to one surface only. Apply only enough to leave a thin film after compression.
3. Press parts together and hold firmly for a few seconds. Good contact is essential. An adequate bond develops in less than one minute. (Maximum strength is attained in 24 hours.

4. Wipe off excess adhesive from the top of the container and recap. *Dynatex® Clear Metal Bonder*, if left uncapped, may deteriorate by contamination from moisture in the air.
5. Because *Dynatex® Clear Metal Bonder* condenses by polymerization, sometimes whitening will occur on the surface of the container or the bonded materials. Should this happen, wipe surfaces well with acetone.

STORAGE

Product should be stored unopened in a cool, dry place out of direct sunlight. Products can be refrigerated for improved shelf life but should be brought back to room temperature before use.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

USERS PLEASE READ

The information and data contained herein is believed to be accurate and reliable; however, it the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made.

It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application.

Likewise, if the application, product specifications or manner in which our products are used require government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

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