



**TDS**

**MXBON<sup>®</sup> 712**

GENERAL PURPOSE (Metal)

**PRODUCT SPECIFICATION**

**MXBON<sup>®</sup> 712**

**Cyanoacrylate Adhesive (Metal)**

**Description:**

MXBON<sup>®</sup> 712 is a general purpose adhesive and is especially formulated for bonding metal substrates. MXBON<sup>®</sup> 712 has a longer setting time than regular Cyanoacrylate adhesive and it allows enough time for users to put materials together after application. It has been specially formulated to achieve the strongest possible bond between well-mated metal substrates. MXBON<sup>®</sup> 712 is a one-component, solvent-free system and does not require the use of a catalyst, heat or clamps. When a thin layer of MXBON<sup>®</sup> 712 applied between two surfaces comes into contact with atmospheric moisture, a rapid polymerization occurs producing the ultimate bond.

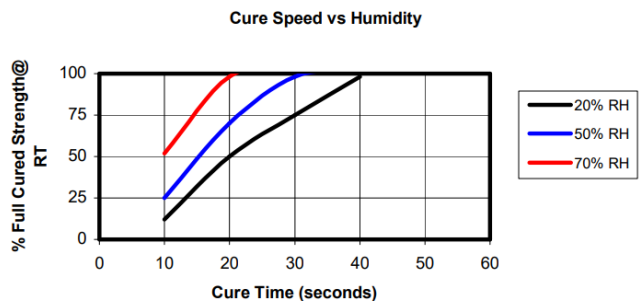
**Typical Properties of Cured/Uncured Material:**

| Uncured State                        |                      | Cured State Physical Properties                     |   |
|--------------------------------------|----------------------|---|---|
| Base                                 | Methyl Cyanoacrylate | Colour  | Clear   |
| Colour                               | Clear                | Coefficient of Thermal Expansion (K <sup>-1</sup> ) | 100 x 10 <sup>-6</sup>                        |
| Specific Gravity (25°)               | 1.10                 | Coefficient of Thermal Conductivity (W/m.K)         | 0.10  |
| Refraction Index (nD <sup>20</sup> ) | 1.439                | Softening Point (°C)                                | 165°C   |
| Flash Point (°C)                     | See SDS              | Cured State Electrical Properties                   |   |
| Vapour Pressure (hPa)                | <1                   | Volume Resistivity (Ω.cm)                           | 2 x 10 <sup>15</sup> - 10 x 10 <sup>15</sup>  |
| Viscosity (cP) @ 25°C                | 1000-1500            | Surface Resistivity (Ω)                             | 10 x 10 <sup>15</sup> - 80 x 10 <sup>15</sup> |
| Shelf Life                           | 12 months            | Dielectric Constant @ 10kHz                         | 2.5   |
| Storage Life Below 5°C               | 12-18 months         | Dielectric Dissipation Factor @ 10kHz               | <0.02   |
|                                      |                      | Dielectric Breakdown Strength (kV/mm)               | 25  |

**Curing Performance:**

There are many factors that can influence the rate of cure. These include: the types of substrate used, the Condition of the surface to be bonded, the smoothness of the surface, the closeness of the surfaces and the atmospheric conditions.

| SUBSTRATE                          | CURE SPEED SECONDS |
|------------------------------------|--------------------|
| Steel to Steel                     | 30-60              |
| Stainless Steel to Stainless Steel | 30-60              |
| Aluminum to Aluminum               | 45-80              |
| Zinc Plated to Zinc Plated         | 30-90              |
| ABS to ABS                         | 10-30              |
| ABS to NBR                         | 10-15              |
| ABS to Wood                        | 10-20              |
| NBR to NBR                         | 3-10               |
| Polycarbonate                      | 30-90              |



## PRODUCT SPECIFICATION

# MXBON® 712

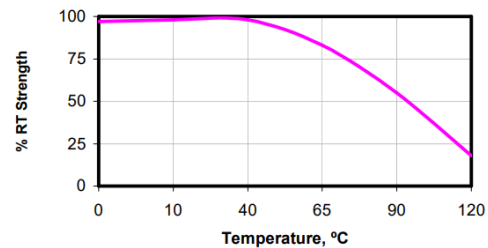
## Cyanoacrylate Adhesive (Metal)

### Bond Strength:

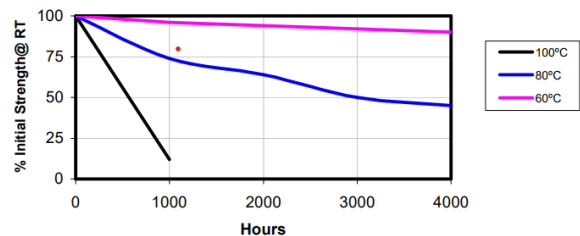
(TENSILE STRENGTH, CURED FOR 24 HOURS AT 20-25°)

| SUBSTRATE                          | KG/CM <sup>2</sup> |
|------------------------------------|--------------------|
| Steel to Steel                     | 190-210            |
| Stainless Steel to Stainless Steel | 250-450            |
| Aluminum to Aluminum               | 170-190            |
| Copper to Copper                   | 150-170            |
| PVC to PVC                         | 40-60              |
| ABS to ABS                         | 50-70              |
| Polycarbonate to Polycarbonate     | 80-120             |
| Polystyrene                        | 30-45              |
| NBR to NBR                         | 5-9                |
| SBR to SBR                         | 5-10               |

Hot Strength, tested at temperature



Aged and tested at temperature



### Directions For Use:

1. Make sure the surfaces to be bonded are clean and dry (preferable to solvent-wipe plastics, glass, rubber and to acid-treat metals).
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 achieved in 24 to 48 hours).
4. Wipe off excess adhesive from the top of the container and recap. **MXBON® 712** if left uncapped, may deteriorate by contamination from moisture in the air.
5. Because **MXBON® 712** polymerises on contact with moisture surfaces, sometimes whitening will occur on the surface of the container or the bonded materials. Should this happen, wipe surfaces well with debonder.

### Handling & Storage

**Storage:** Keep products in the unopened container in a cool dry location. The product is best when stored at 2 to 8°C. temperatures less than 2°C can adversely affect product properties. Do not freeze. Keep container tightly closed until ready for use.

**Handling:** Material 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.

### Precaution

1. Use with proper ventilation. Avoid contact with skin and eyes.
2. If contact with skin occurs, rinse with warm water or dissolve with appropriate debonder. Do not try to remove forcibly.
3. If adhesive gets into your 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 place 20-25°C. For long term storage, refrigeration (5°C) is recommended.

### Disclaimer:

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