

PRODUCT DESCRIPTION

MXBON® 31319 is a one component acrylic-based adhesive that offers structural bonding solutions for materials such as glass, metal, ceramics and plastics. Typical applications include bonding of rear-view mirrors onto glass.

Technology	Acrylic
Chemical Type	Modified acrylic ester
Appearance (uncured)	Clear light amber liquid
Components	One component – requires no mixing
Viscosity	Medium
Cure	Anaerobic with activator
Application	Bonding

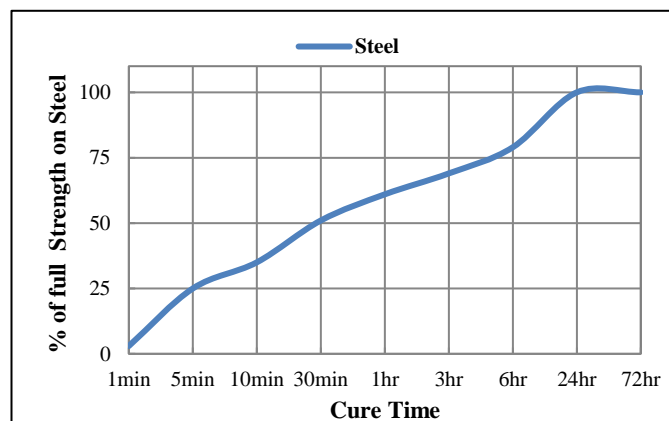
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 3, 20 rpm	1,500 to 4,000
Shelf life	24 months unopened when stored at 8 to 12°C

TYPICAL CURING PERFORMANCE

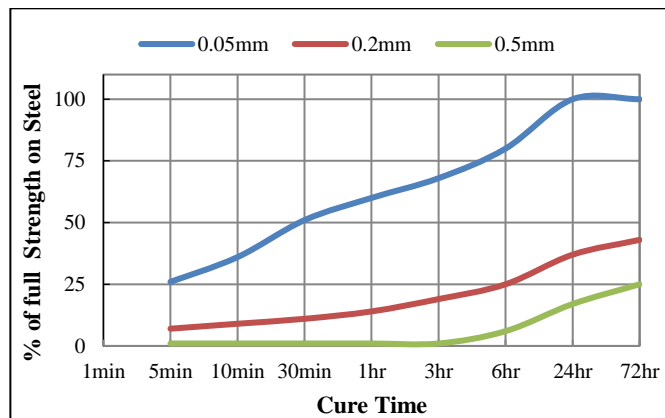
Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the breakaway strength developed with time on grit blasted steel lap shears compared to different materials and tested according to ISO 4587. (Activator 017649 applied to one surface).



Cure Speed vs. Bond Gap

The rate of cure will depend on the bondline gap. The graph below shows the breakaway strength developed with time on grit blasted steel lap shears compared to different materials and tested according to ISO 4587. (Activator 017649 applied to one surface).



TYPICAL PERFORMANCE OF CURED MATERIAL

Physical Properties

Coefficient of Thermal Expansion, ISO 11359-2, mm/mm/K	1×10 ⁻⁴
Coefficient of Thermal Conductivity, ISO 8302, W/mK	0.1
Specific Heat, kJ/(kg·K)	0.3

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 1 hour @ 25 °C, Activator 017649 on 2 side

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

GBMS (Grit Blasted Mild Steel)

Bond Gap	N/mm ²	psi
0 mm gap	≥ 10.2	≥ 1479.4

Cured for 24 hrs @ 25 °C, Activator 017649 on 2 side

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

GBMS (Grit Blasted Mild Steel)

Bond Gap	N/mm ²	psi
0.25 mm gap	≥ 4.5	≥ 652.7

TYPICAL ENVIRONMENTAL RESISTANCE

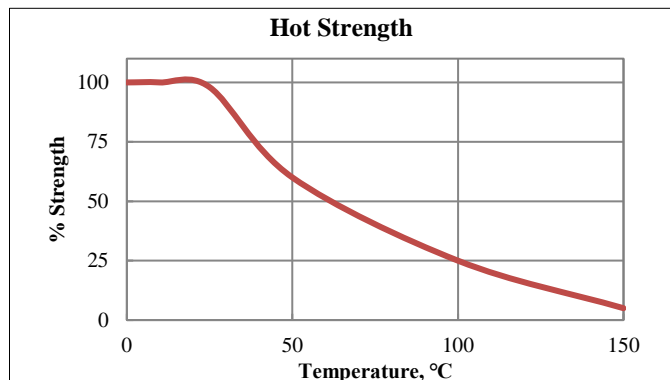
Cured for 1 week @ 25°C, Activator 017649 on 1 side

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

GBMS (Grit Blasted Mild Steel)

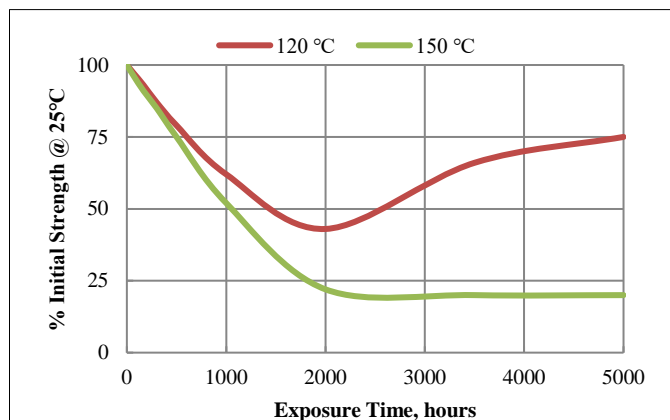
Heat Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested @ 25 °C



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 25 °C

		% of initial strength
Environment	°C	720 h
Motor oil	87	30
Gasoline	87	80
Humidity, 100% RH	50	35
Water/glycol 50/50	150	20

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be use with chlorine or other strong oxidizing materials. Where washing systems are used to clean the surfaces before bonding, it is important to check the compatibility of the washing solution with the adhesive. In some cases, these solutions can affect the cure and performance of the adhesive. This product is not recommended for use on certain plastics. Users are recommended to confirm compatibility of the product with such substrates.

Storage & Handling precaution

Keep adhesive in a cool and dry place. The storage temperature is recommended at 8 °C to 12 °C. For details, consult the Safety Data Sheet, (SDS). Shelf life is two years from the date of manufacture in the original container under the optimal conditions.

1. Avoid contact with skin and eyes.
2. If contact with skin, rinse with water.
3. If adhesive gets into eye, keep eye open and rinse with water thoroughly. Seek medical attention immediately.
4. Keep the material out of children's reach.

Note

The data contained herein are furnished for informational purposes only and are believed to be reliable. However, Cartell Chemical Co., Ltd does not assume responsibility for any results obtained by persons over whose methods Cartell Chemical Co., Ltd has no control. It is the user's responsibility to determine the suitability of Cartell Chemical Co., Ltd's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Cartell Chemical Co., Ltd's products. Cartell Chemical Co., Ltd specifically disclaims all warranties express or implied, including warranties of merchantability or suitability for a particular purpose arising from sale or use of Cartell Chemical Co., Ltd's products. Cartell Chemical Co., Ltd further disclaims any liability for consequential or incremental damages of any kind including lost profits.