

PRODUCT DESCRIPTION

MXBON® 31326 is a yellow to amber, no-mix, one component, acrylic magnet bonder for surface permanent magnets (SPM) that is used for fast cure and high shear strength. It has good adhesion to different types of ferrites.

Technology	Acrylic
Chemical Type	Urethane methacrylate ester
Appearance (uncured)	Transparent light amber liquid
Components	One component – requires no mixing
Viscosity	High
Cure	Anaerobic
Secondary Cure	Activator
Application	Bonding

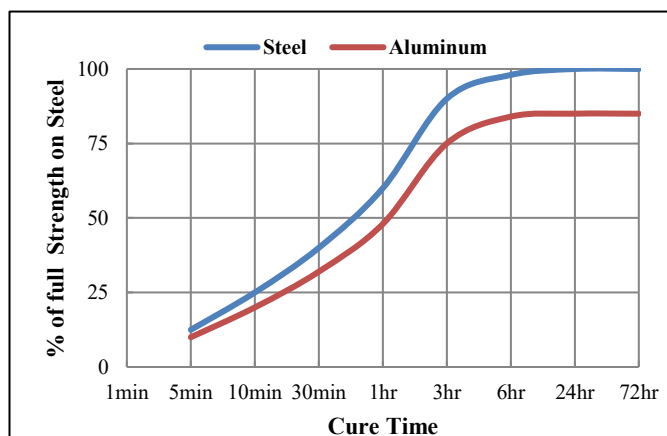
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 6, 20 rpm	11,000 to ,25,000
Shelf life	24 months unopened when stored at 8 to 21°C

TYPICAL CURING PERFORMANCE

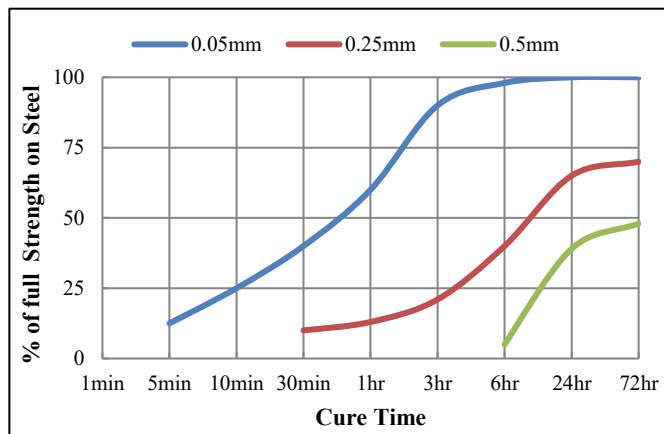
Cure Speed vs. Substrate

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).



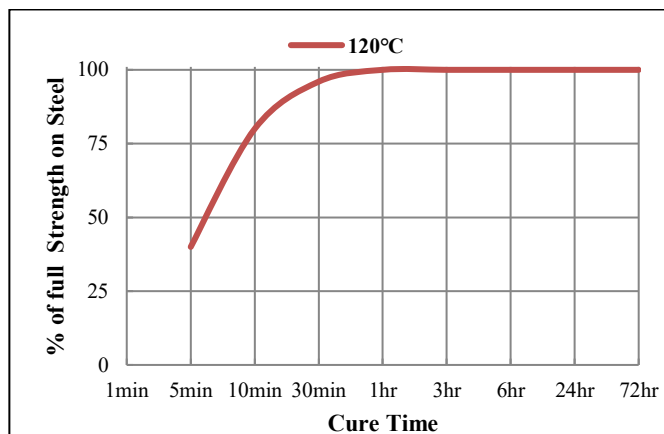
Cure Speed vs. Bond Gap

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).



Cure Speed vs. Temperature

The rate of cure will depend on the ambient temperature. The graph below shows shear strength developed with time at 120 °C on grit blasted steel lap shears and tested according to ISO 4587.



TYPICAL PERFORMANCE OF CURED MATERIAL

Physical Properties

Elongation, at break, ISO 527-3, %	130
Tensile Strength, ISO 527-2, N/mm ²	35
Tensile Modulus, ISO 527-2, N/mm ²	290
Coefficient of Thermal Expansion, ISO 11359-2, mm/mm/K	7.5×10^{-5}
Coefficient of Thermal Conductivity, ISO 8302, W/mK	0.1
Specific Heat, kJ/(kg·K)	0.3

Electrical Properties

Dielectric Constant / Dissipation Factor, IEC 60250, @ 100 Hz	5.5/0.03
Dielectric Constant / Dissipation Factor, IEC 60250, @ 1 kHz	5.4/0.03
Dielectric Constant / Dissipation Factor, IEC 60250, @ 1 MHz	4.5/0.04
Dielectric Breakdown Strength, IEC 60243-1, kV/mm	30
Volume Resistivity, IEC 60093, $\Omega \cdot \text{cm}$	2×10^{13}
Surface Resistivity, IEC 60093, Ω	2×10^{17}

Adhesive Properties

Cured for 24 hrs @ 25 °C, Activator 017649 on 1 side
Lap Shear Strength, ISO 4587/ASTM D1002/JIS K6850
GBMS (Grit Blasted Mild Steel)

Bond Gap	N/mm ²	psi
0 mm gap	≥ 15.2	2204.6

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)

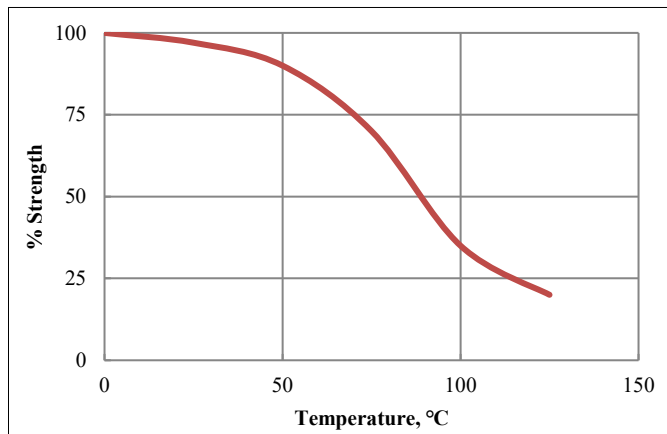
Bond Gap	N/mm ²	psi
0 mm gap	≥ 13.8	2001.5

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 1 week @ 25°C
Lap Shear Strength, ISO 4587/ASTM D1002/JIS K6850
GBMS (Grit Blasted Mild Steel)

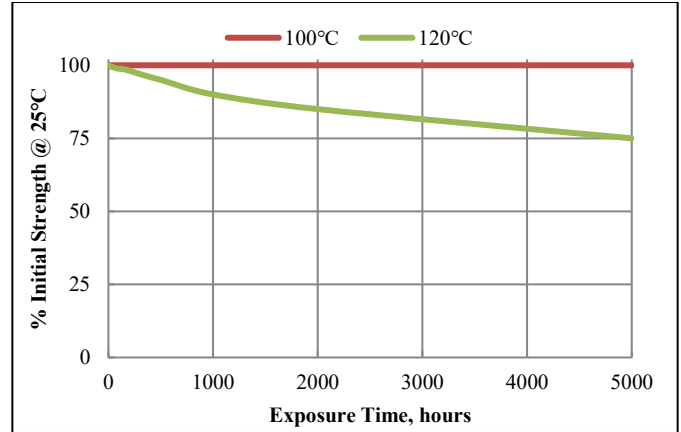
Heat Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested @ 25 °C



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 25 °C

Environment	°C	% of initial strength			
		100 h	500h	1000h	5000h
Motor oil	25	100	100	100	100
gasoline	25	100	60	60	60
Humidity, 98% RH	40	85	50	45	45
Water/glycol 50/50	87	100	40	40	40

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 21 °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.,

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