

PRODUCT DESCRIPTION

MXBON® 31332 is a light yellow to dark amber, opaque, thixotropic, modified acrylic structural adhesive liquid designed primarily for securing permanent magnets in motor magnet bonding applications. This product has demonstrated the ability to provide tough, durable bonds with outstanding impact and peel resistance.

Technology	Acrylic
Chemical Type	Modified acrylic
Appearance (uncured)	Opaque light yellow to dark amber
Components	One component – requires no mixing
Viscosity	High
Cure	Activator
Secondary Cure	Heat
Application	Bonding

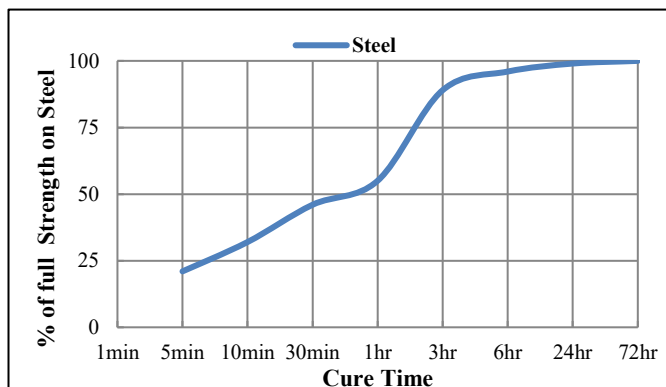
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	0.89
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 7, 20 rpm	75000 to 130000
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 shear strength developed with time @ 23°C on grit blasted steel lap shears compared to different materials and tested according to ISO 4587. (Activator 037387 applied to one surface).



Heat Cure

Heat can be used to effect or accelerate cure when surface priming operations are undesirable. Typical heat cure conditions consist of heating and maintaining bondline at a temperature given below for the corresponding time specified. Optimum conditions for heat cure should be determined on the actual assemblies.

130 °C for 20 minutes

140 °C for 15 minutes

150 °C for 10 minutes

TYPICAL PERFORMANCE OF CURED MATERIAL

Physical Properties:

Hardness, ISO 868, Shore D	65
Tensile Modulus, ISO 527-2, N/mm ²	900
Tensile Strength, at break, ISO 527-2, N/mm ²	17.0

Adhesive Properties

Cured for 24 hours @ 25 °C, Activator 037387 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	>11.0	>1595.4
0.5 mm gap	>3.4	>493.1

TYPICAL ENVIRONMENTAL RESISTANCE

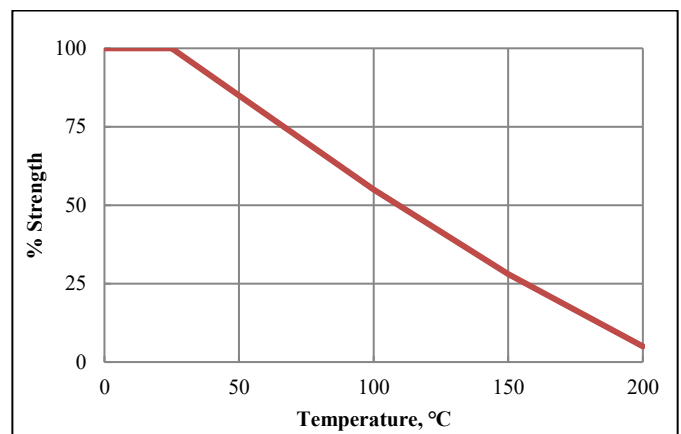
Cured for 48 hrs @ 25 °C, Activator 037387 on 1 side

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

GBMS (Grit Blasted Mild Steel)

Heat Strength

Test at temperature



Heat Aging

Aged at temperature indicated and tested @ 25 °C

	% of initial strength
Temperature (°C)	1000h
90	110
120	115
150	130
175	125
200	85

Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 25 °C

	% of initial strength	
Environment	°C	5000h
Fresh air	87	100
Water/ethylene glycol 50/50	87	110
Unleaded Petrol	87	20
Motor oil	87	95

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

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