

## PRODUCT DESCRIPTION

MXBON® 31330 is a no-mix, pale-yellow, general purpose structural bonder which is ideal for bonding metal substrate. It is a medium to high viscosity product that has good impact resistance.

Technology	Acrylic
Chemical Type	Methacrylate ester
Appearance (uncured)	Slightly cloudy, colorless to pale yellow liquid
Components	One component – requires no mixing
Viscosity	High
Cure	With activator
Application	Bonding

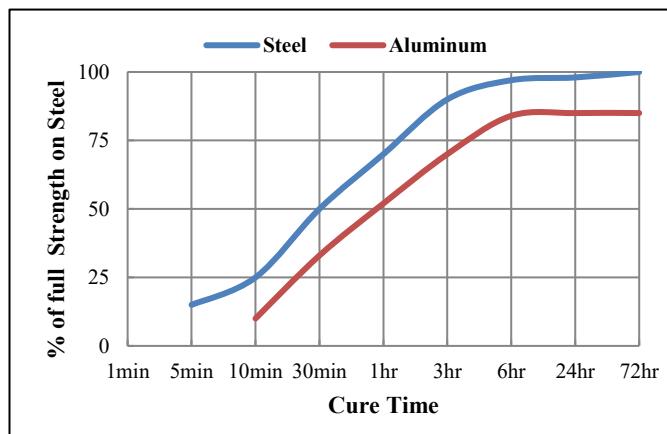
## TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	0.9
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 7, 20 rpm	45,000 to 90,000
Shelf life	18 months unopened when stored at 8 to 21°C

## TYPICAL CURING PERFORMANCE

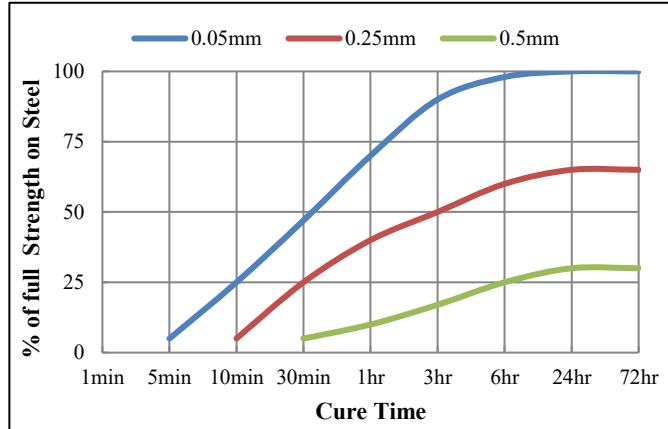
## Cure Speed vs. Substrate

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).



## 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 037387 applied to one surface).



## TYPICAL PERFORMANCE OF CURED MATERIAL

## Physical Properties:

Coefficient of Thermal Expansion, ISO 11359-2, mm/mm/K	$1.5 \times 10^{-4}$
Coefficient of Thermal Conductivity, ISO 8302, W/mK	0.1
Specific Hea, kJ/(kg·K)	0.3

## Adhesive Properties

Cured for 24 hrs @ 25 °C, Activator 037387 on 1 side  
Lap Shear Strength, ISO 4587/ASTM D1002/JIS K6850

Bonding Identical Substrate	N/mm <sup>2</sup>	psi
GBMS (Grit Blasted Mild Steel)	15.0 to 30.0	2175.6 to 4351.2

Cured for 24 hrs @ 25 °C, Activator 037387 on 1 side  
Block Tensile Strength, ISO 6922/ASTM D2095/JIS

Bonding Identical Substrate	N/mm <sup>2</sup>	psi
Stainless Steel	12.0 to 22.0	1740.5 to 3190.8

Cured for 24 hrs @ 25 °C, Activator 037387 on 2 side  
Lap Shear Strength, ISO 4587/ASTM D1002/JIS K6850

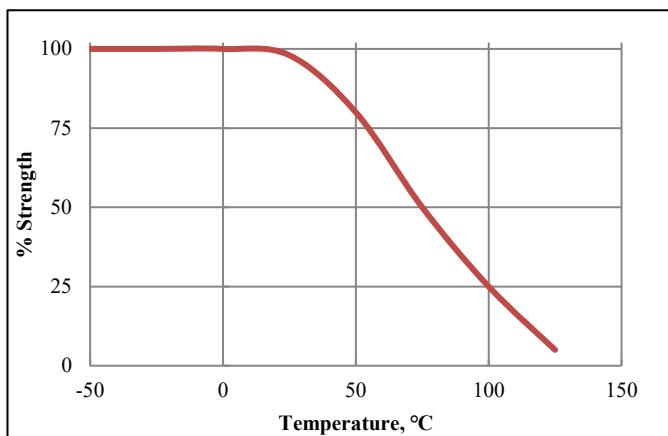
Bonding Identical Substrate	N/mm <sup>2</sup>	psi
GBMS (Grit Blasted Mild Steel)	$\geq 16.5$	$\geq 2393.1$

## TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 24 hrs @ 25 °C, Activator 7387 on 1 side  
 Lap Shear Strength, ISO 4587/ASTM D1002/JIS K6850  
 GBMS (Grit Blasted Mild Steel)  
 0.25 mm gap

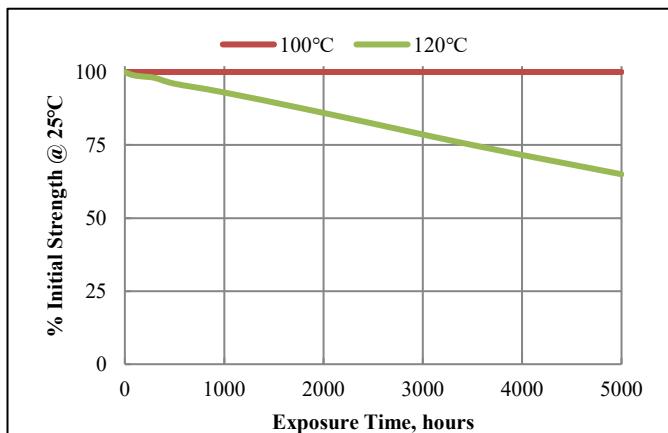
## Heat Strength

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	
		350 hrs	720 hrs
Acetone	25	10	10
Motor oil	87	90	66
Unleaded gasoline	25	20	20
Water/ethylene glycol 50/50	87	60	60

## GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be used 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 &amp; 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

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