

### PRODUCT DESCRIPTION

MXBON® 13542 is designed for the sealing and locking of metal fittings and pipes. The product is a single component anaerobic, thixotropic, acrylic based product. The product cures when confined in the absence of air between close fitting metal surfaces and prevents leakage and loosening from vibration and shock.

<b>Technology</b>	Acrylic
<b>Chemical Type</b>	Dimethacrylate ester
<b>Appearance (uncured)</b>	Brown liquid
<b>Components</b>	One component – requires no mixing
<b>Viscosity</b>	Low, thixotropic
<b>Cure</b>	Anaerobic
<b>Secondary Cure</b>	Activator
<b>Application</b>	Thread sealing

### NSF International

Registered to NSF Category S6 for use as a thread locking where there is no possibility of food contact in and around food processing areas. Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

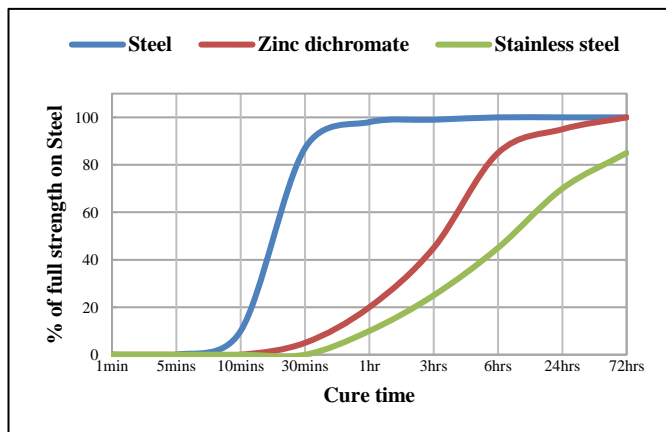
### TYPICAL PROPERTIES OF UNCURED MATERIAL

<b>Specific Gravity @ 25 °C</b>	1.1
<b>Flash Point -</b>	See SDS
<b>Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)</b>	
<b>Spindle 2, 20 rpm</b>	400 to 800
<b>Spindle 2, 2.5 rpm</b>	1,200 to 2,750
<b>Shelf life</b>	24 months unopened when stored at 8 to 24°C

### TYPICAL CURING PERFORMANCE

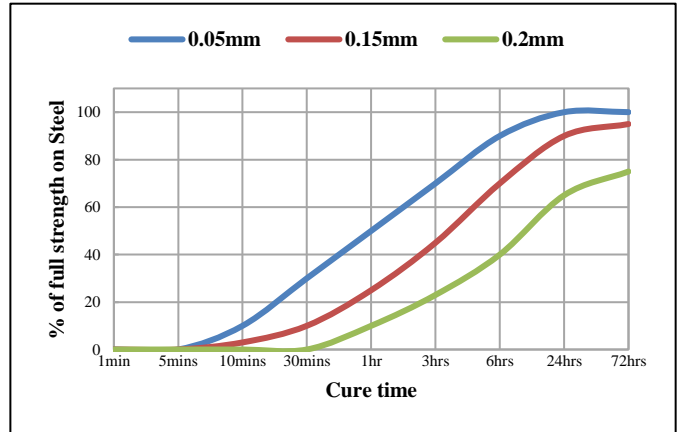
#### Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the breakaway strength developed with time on M10 steel nuts and bolts compared to different materials and tested according to ISO 10964.



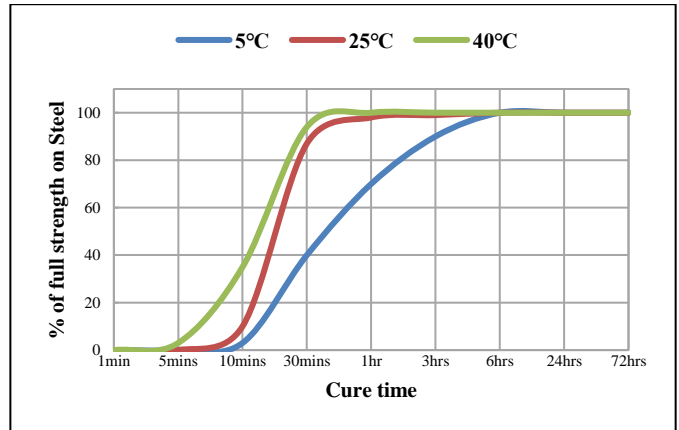
#### Cure Speed vs. Bond Gap

The rate of cure will depend on the bondline gap. Gaps in threaded fasteners depends on thread type, quality and size. The following graph shows shear strength developed with time on steel pins and collars at different controlled gaps and tested according to ISO 10123.



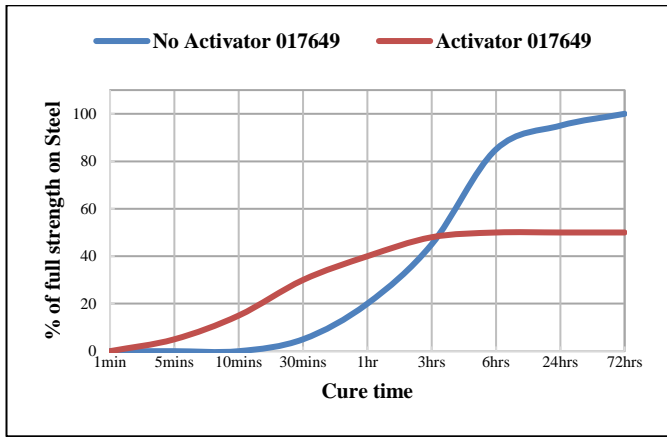
#### Cure Speed vs. Temperature

The rate of cure will depend on the temperature. The graph below shows the breakaway strength developed with time at different temperatures on M10 steel nuts and bolts and tested according to ISO 10964.



#### Cure Speed vs. Activator

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed. The graph below shows the breakaway strength developed with time on M10 zinc dichromate steel nuts and bolts using Activator 017649 and tested according to ISO 10964.



**Chemical/Solvent Resistance**

Aged under conditions indicated and tested @ 25 °C

Environment	% of initial strength			
	°C	100 h	500h	1000h
Unleaded Petrol	25	100	100	95
Water/ethylene glycol 50/50	87	90	85	80
IPA	25	85	80	70
Acetone	25	100	95	90

**TYPICAL PERFORMANCE OF CURED MATERIAL**

**Adhesive Properties - Torque**

Cured for 24 hrs @ 25 °C

Breakaway Torque, ISO 10964, Unseated:

Bonding Identical Substrate	N.m	lb.in.
M10 steel nuts and bolts	18	158

Prevail Torque, ISO 10964, Unseated:

Bonding Identical Substrate	N.m	lb.in.
M10 steel nuts and bolts	7	69

**Adhesive Properties - Shear Strength**

After 24 hours @ 25 °C

Compressive Shear Strength, ISO 10123:

	N/mm <sup>2</sup>	psi
Steel pins and collars	9.7	1,407

**TYPICAL ENVIRONMENTAL RESISTANCE**

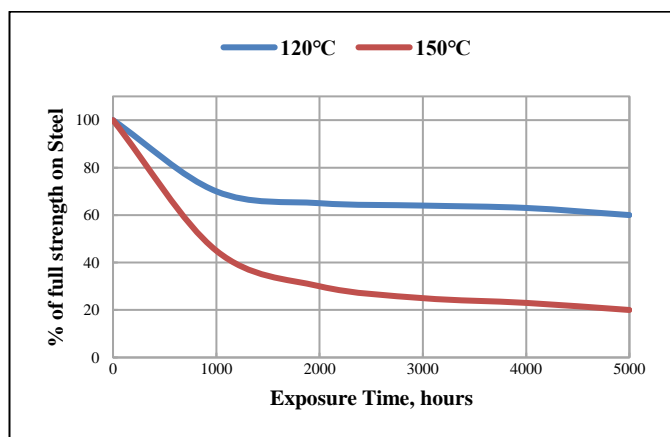
Cured for 1 week @ 25 °C

Breakloose Torque, ISO 10964, Pre-torque to 5 N.m

M10 zinc phosphate steel nuts and bolts

**Heat Aging**

Aged at temperature indicated and tested @ 25 °C



**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 24 °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.

**Directions for use**

For assembly

1. The substrate surfaces must be clean and free of grease.
2. Shake the product thoroughly before use.
3. If the cure speed is too slow, consider using activator.
4. Apply several drops to the nut & bolt.
5. Assemble and tighten as required.
6. To prevent the clogging of the bottle nozzle, do not let the tip touch the metal surfaces during application.

For disassembly & cleanup

1. Use localized heat (250 °C) to nut and bolt, disassemble while hot.
2. Use a wire brush to clean the charred product.



**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.

