

PRODUCT DESCRIPTION

MXBON® 11277 is designed for the sealing and locking of metal threaded fasteners. 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.

Technology	Acrylic
Chemical Type	Dimethacrylate ester
Appearance (uncured)	Red liquid
Fluorescence	Positive under UV light
Components	One component – requires no mixing
Viscosity	Medium
Cure	Anaerobic
Secondary Cure	Activator
Application	Threadlocking
Strength	High

NSF International

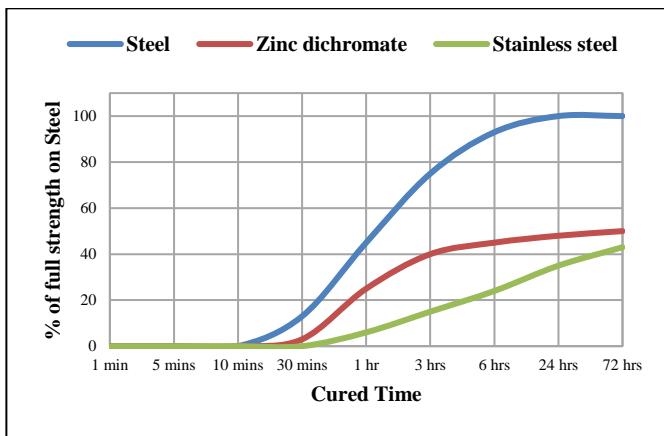
Registered to NSF Category S6 for use as a thread locking where there is no possibility of food contact in and around food processing areas. Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

TYPICAL PROPERTIES OF UNCURED MATERIAL

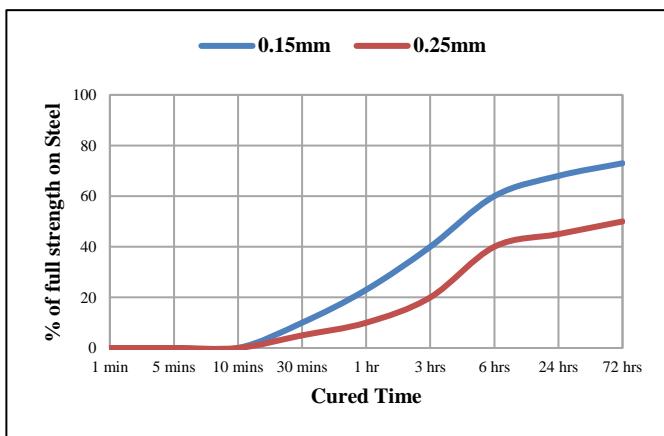
Specific Gravity @ 25 °C	1.1
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 4, 20 rpm	6,000 to 8,000
Shelf life	24 months unopened when stored at 8 to 24°C

TYPICAL CURING PERFORMANCE**Cure Speed vs. Substrate**

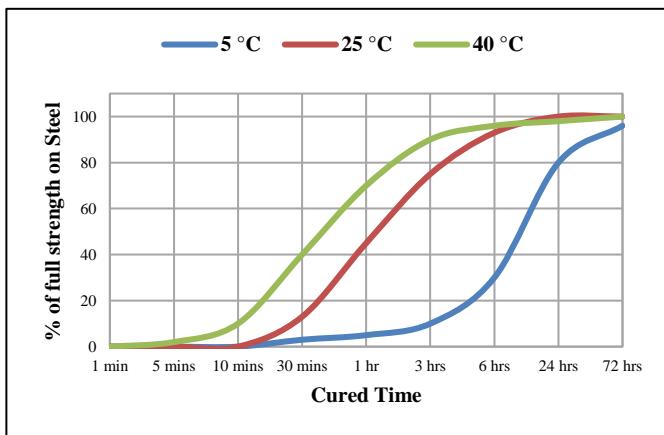
The rate of cure will depend on the substrate used. The graph below shows the breakaway strength developed with time on M10 steel nuts and bolts compared to different materials and tested according to ISO 10964.

**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.

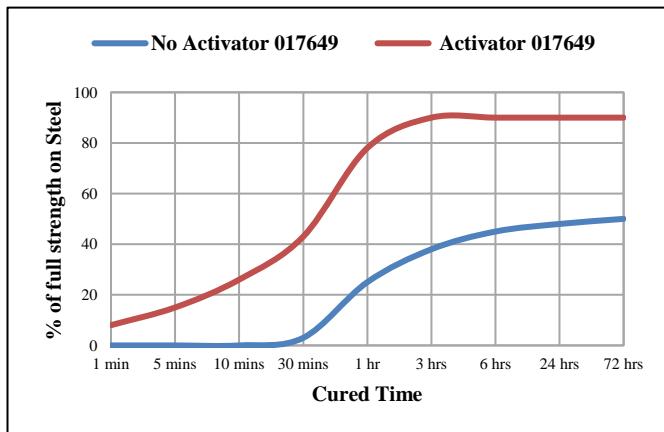
**Cure Speed vs. Temperature**

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.



TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties - Torque

Cured for 24 hrs @ 25 °C

Breakaway Torque, ISO 10964:

Bonding Identical Substrate	N.m	lb.in.
M10 steel nuts and bolts	32	282

Prevail Torque, ISO 10964:

Bonding Identical Substrate	N.m	lb.in.
M10 steel nuts and bolts	32	282

Adhesive Properties - Shear Strength

After 24 hours @ 25 °C

Compressive Shear Strength, ISO 10123:

	N/mm ²	psi
Steel pins and collars	≥ 9	1,305

TYPICAL ENVIRONMENTAL RESISTANCE

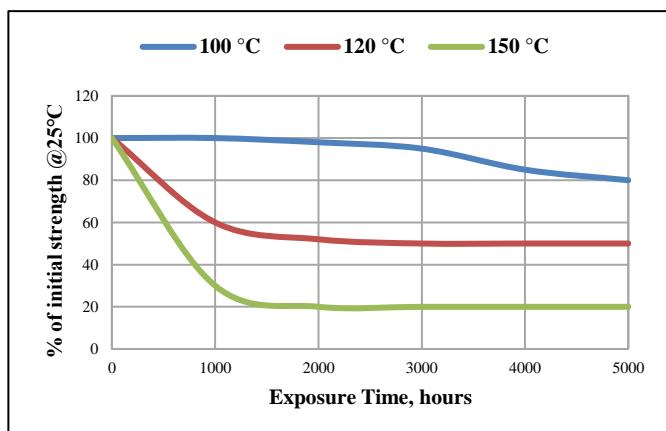
Cured for 1 week @ 25 °C

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



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	95	90	90
IPA	25	85	80	80
Acetone	25	90	90	85

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 & 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

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