

PRODUCT DESCRIPTION

MXLOC[®] 13577 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.

Technology	Acrylic
Chemical Type	Dimethacrylate ester
Appearance (uncured)	Yellow paste
Fluorescence	Positive under UV light
Components	One component – requires no mixing
Viscosity	High, thixotropic
Cure	Anaerobic
Secondary Cure	Activator
Application	Thread sealing
Strength	Medium

NSF International

Registered to NSF Category P1 for use as a sealant 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.

WRAS

Registered to WRAS material approval, it is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'. The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use. Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

DVGW

Registered to DVGW greasing and sealing materials for metallic threaded joints in gas appliances, gas equipment and water heating equipments, not allowed in the gas installation according to DVGW-TRGI 2008. Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

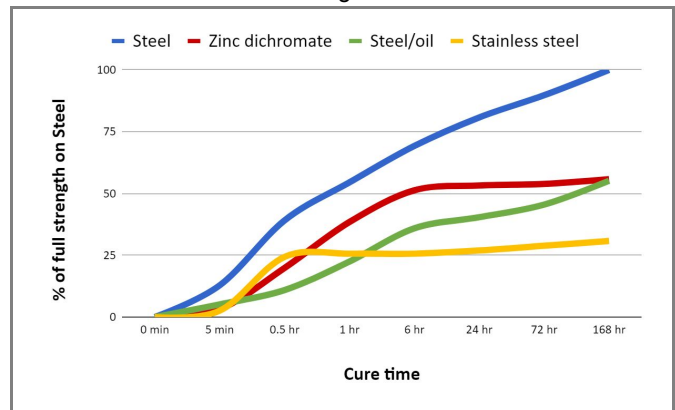
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 6, 2.5 rpm	70,000 to 130,000
Spindle 6, 20 rpm	16,000 to 33,000

TYPICAL CURING PERFORMANCE

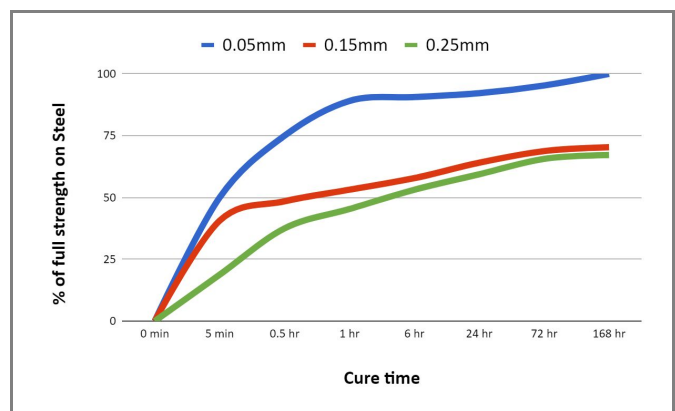
Cure Speed vs. Substrate

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.



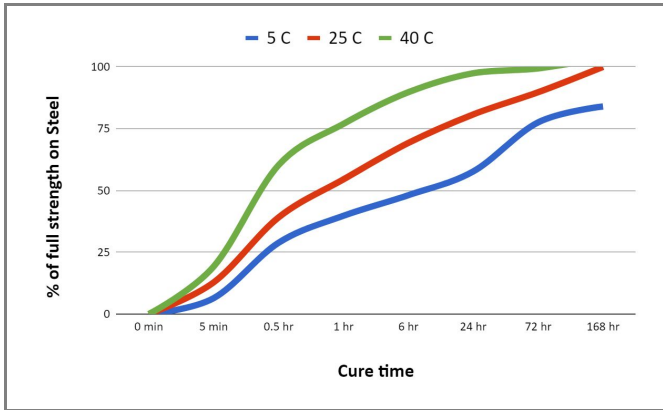
Cure Speed vs. Bond Gap

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.



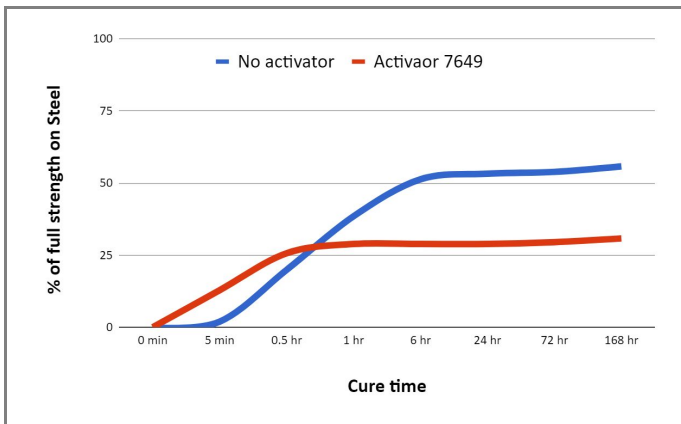
Cure Speed vs. Temperature

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 7649 and tested according to ISO 10964.



TYPICAL PERFORMANCE OF CURED MATERIAL

Operating temperature -54 °C~150 °C
 Pressure resistance 10,000 psi

Adhesive Properties - Torque

Cured for 24 hrs @ 22 °C

Breakaway Torque, ISO 10964, Unseated:

Bonding Identical Substrate	N. m	lb.in.
M10 steel nuts and bolts	13.5	120
M10 Zinc dichromate nuts and bolts	8.4	74

Prevail Torque @ 180°, ISO 10964, Unseated:

Bonding Identical Substrate	N. m	lb.in.
M10 steel nuts and bolts	3.5	31
M10 Zinc dichromate nuts and bolts	4.1	36

Adhesive Properties - Shear Strength

After 30 minutes @ 22 °C

Compressive Shear Strength, ISO 10123:

	N/mm ²	psi
Steel pins and collars	5.2	754

After 24 hours @ 22 °C

Compressive Shear Strength, ISO 10123:

	N/mm ²	psi
Steel pins and collars	6.3	914

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 – 24 °C. For details, consult the Material Safety Data Sheet, (MSDS). Shelf life is twelve months 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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