

PRODUCT DESCRIPTION

MXLOC[®] 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.

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

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.

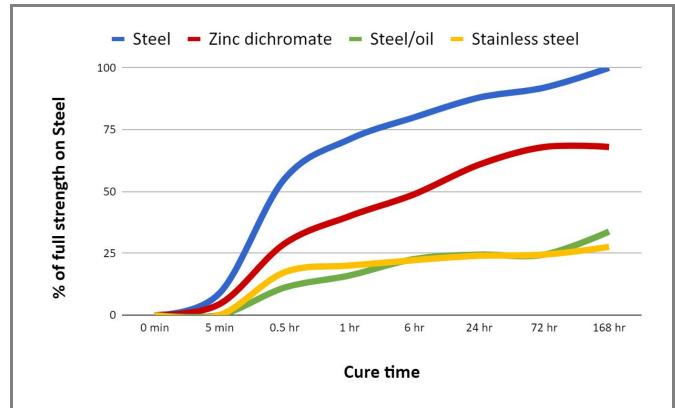
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Flash Point -	See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP)	
Spindle 2, 2.5 rpm	1,200 to 2,750

TYPICAL CURING PERFORMANCE

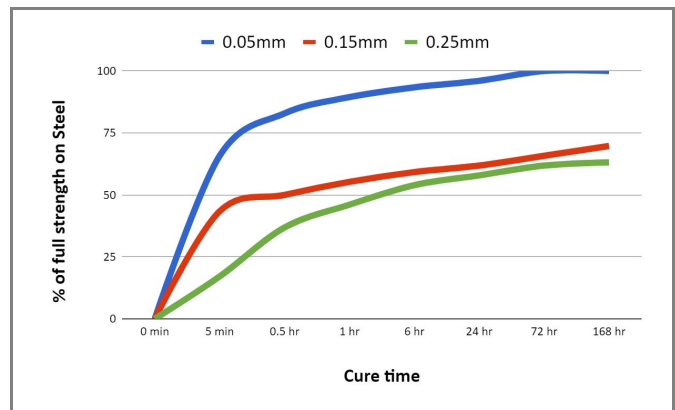
Cure Speed vs. Substrate

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.



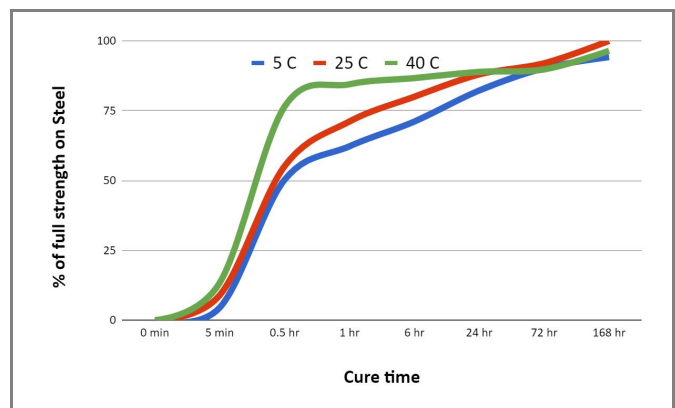
Cure Speed vs. Bond Gap

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.



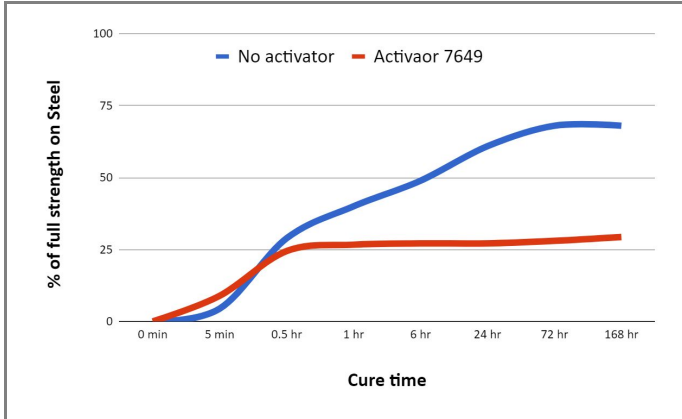
Cure Speed vs. Temperature

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	20.7	183
M10 Zinc dichromate nuts and bolts	13.7	121

Prevail Torque @ 180°, ISO 10964, Unseated:

Bonding Identical Substrate	N. m	lb.in.
M10 steel nuts and bolts	9.9	88
M10 Zinc dichromate nuts and bolts	6.9	61

Adhesive Properties - Shear Strength

After 30 minutes @ 22 °C

Compressive Shear Strength, ISO 10123:

	N/mm ²	psi
Steel pins and collars	6.9	1,001

After 24 hours @ 22 °C

Compressive Shear Strength, ISO 10123:

	N/mm ²	psi
Steel pins and collars	9.1	1,320

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

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.