



TDS

MXLOC[®] 43

Threadlocking

PRODUCT SPECIFICATION MXLOC®43

Description:

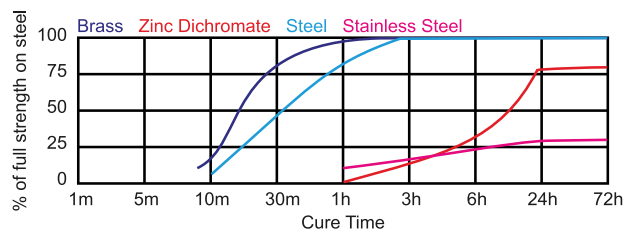
MXLOC® 43 is designed for the sealing and locking of threaded fasteners which may require disassembly with standard handtools. The product is a single component anaerobic, medium strength thixotropic, acrylic based threadlocker. The product cures when confined in the absence of air between close fitting metal surfaces which prevents leakage and loosening from vibration and shock.

Typical Properties of Cured/Uncured Material:

| Uncured State Physical Properties | | Uncured State Physical Properties | |
|-----------------------------------|-----------------------------|--|--------------------------------|
| Base | Acrylic | Specific Gravity @ 25°C | 1.08 |
| Colour | Blue Liquid | Viscosity @ 25°C | 1200 - 3000 cPs |
| Chemical Form | Dimethacrylate ester | Flash Point | See MSDS |
| Cure | Anaerobic | Fixture Time | 10 – 15 mins |
| Fluorescence | Positive under UV | Typical Performance of Cured Material | |
| Secondary Cure | Activator | Operating Temperature °C (after 24hrs at 20-25°C) on M10 steel nuts & Bolts | Typical Value -54°C - 150°C |
| Components | Single – Requires no mixing | | Typical Value |
| Viscosity | Medium | Breakaway Torque M10 steel bolts & nuts ISO 10964 | 20Nm |
| Strength | Medium | Prevail Torque M10 steel bolts & nuts ISO 10964 | 7Nm |
| Application | Threadlocking | | |

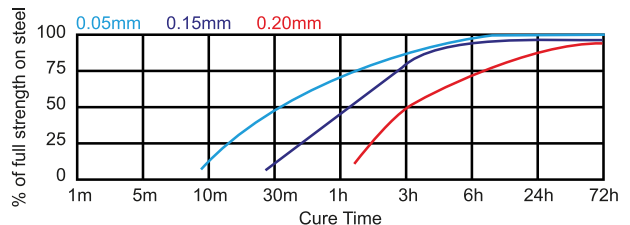
Cure Speed vs Substrate

The rate of cure is dependent on substrate used. The graph to the right shows the breakaway strength developed with time on steel collars and pins compared to different materials and tested according to ISO 101123



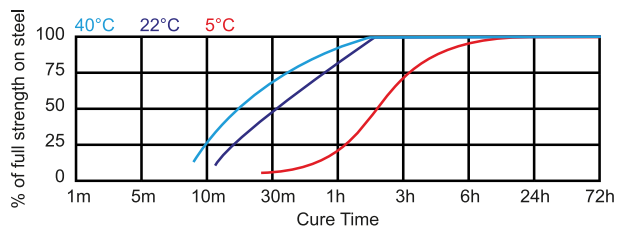
Cure Speed vs Bond Gap

The rate of cure is dependent on bond gap. The graph to the right shows shear strength developed with time on steel collars and pins compared to different controlled gaps and tested according to ISO 10123



Cure Speed vs Temperature

The rate of cure is dependent on the ambient temperature. The graph to the right shows shear strength developed with time on steel collars and pins compared to different controlled gaps and tested according to ISO 10123

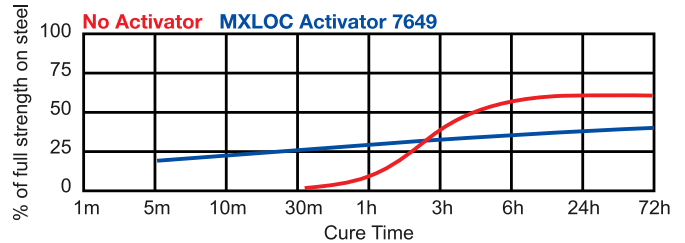


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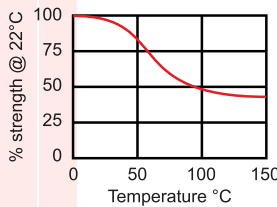
Cure Speed vs Activator

Where the cure speed is unacceptable long or large gaps are present. An activator can be applied to the surface which will improve speed. The graph to the right shows the shear strength.

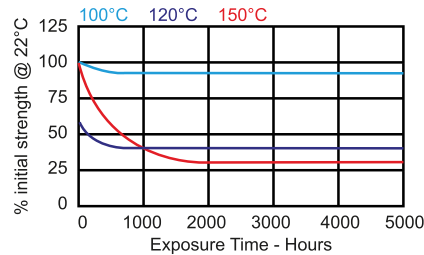


Typical Heat Resistance

**Hot Strength
Tested at Temperature**



**Heat Aging
Aged at temperature indicated and tested at 22°C**



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22°C

| Environment | °C | % of initial strength | | | |
|-------------------------|-----|-----------------------|-------|--------|--------|
| | | 100 h | 500 h | 1000 h | 1000 h |
| Motor oil (MIL-L-46152) | 125 | 95 | 95 | 95 | 95 |
| Unleaded Petrol | 22 | 100 | 100 | 95 | 95 |
| Brake Fluid | 22 | 100 | 100 | 100 | 100 |
| Ethanol | 22 | 100 | 85 | 85 | 85 |
| Acetone | 22 | 100 | 100 | 85 | 85 |
| Water/Glycol 50/50 | 87 | 95 | 80 | 80 | 80 |

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 oxidising materials. **For information on the safe handling of this product, consult the Material Safety Data Sheet, (MSDS).** 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.

Revision date: 01/2025 - Revision: 04



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Directions For Use:

1. For optimum performance surfaces should be clean and free of grease (internal and external).
2. If the material is an inactive metal consider using activator.
3. Assemble and tighten as required.
4. For shrink fitted assemblies the product should be applied onto the pin, the collar should then be heated to create clearance for free assembly.
5. For slip fitted assemblies the product inside of the collar then to the leading edge of the pin, then use a rotating motion in assembly to ensure coverage.
6. For press fitted, apply product to both surfaces making sure of assembly at high press rates.

For disassembly

1. In circumstances where hand tools do not work, use localised heat to bolt or nut, disassemble while hot.

For cleanup

1. To remove cured product use a combination of solvent and abrasion such as a wire brush.

Handling & Storage

Storage: Keep products in the unopened container in a cool dry location. The product is best when stored at 8 to 21°C. temperatures less than 2°C can adversely affect product properties. Do not freeze. Keep container tightly closed until ready for use. For long term storage keep in refrigeration at 5°C unless otherwise labelled.

Handling: Material removed from containers may be contaminated during use. Do not pour back any product to the original Container. Misuse of product will void all warranties.

Precaution

1. Use with proper ventilation. Avoid contact with skin and eyes.
2. If contact with skin occurs, rinse with warm water or dissolve with appropriate debonder. Do not try to remove forcibly.
3. If adhesive gets into your eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
4. Keep well out of reach of children.
5. Keep adhesive in a cool dry place 8°C to 21°C.

Disclaimer:

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