TECHSIL® HIGH TEMPERATURE THREADLOCK 72

Techsil® High Temperature Threadlock 72 is designed for the permanent sealing and locking of threaded fasteners. The product is a single component anaerobic, high strength, acrylic based threadlocker. The product cures when confined in the absence of air between close fitting metal surfaces and prevents leakage and loosening from vibration and shock

Physical Properties

Property	Value
Technology	Acrylic
Uncured Appearance	Red Liquid
Chemical Form	Dimethacrylate ester
Fluorescence	Positive under UV
Cure	Anaerobic
Secondary Cure	Activator
Components	Single – requires no mixing
Viscosity	Medium
Strength	High
Application	Thread locking

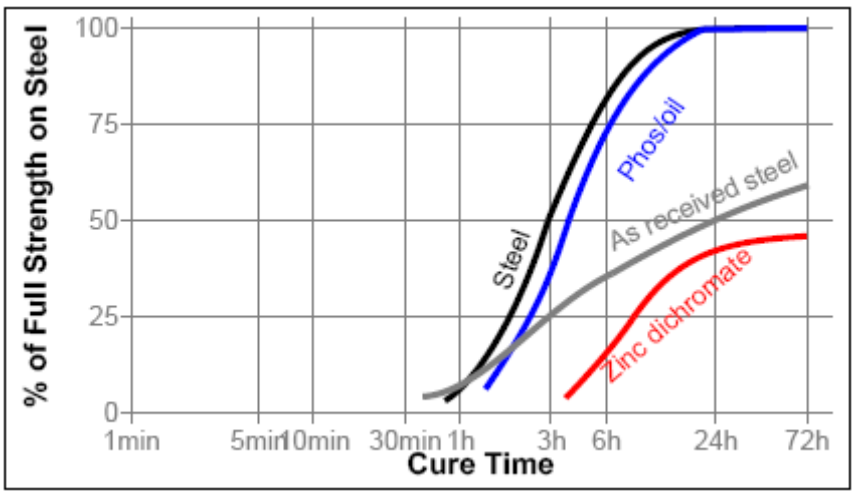
Techsil® High Temperature Threadlock 72 is particularly suitable for uses including sealing and locking of large studs and bolts (M25>).

Properties of Uncured Material

	Typical Value
Specific Gravity @ 25°C	1.11
Viscosity @ 25°C	4000-6000 cPs
Flash Point	See MSDS
Fixture Time	15-30 mins

Cure speed vs. substrate

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



Contact Details

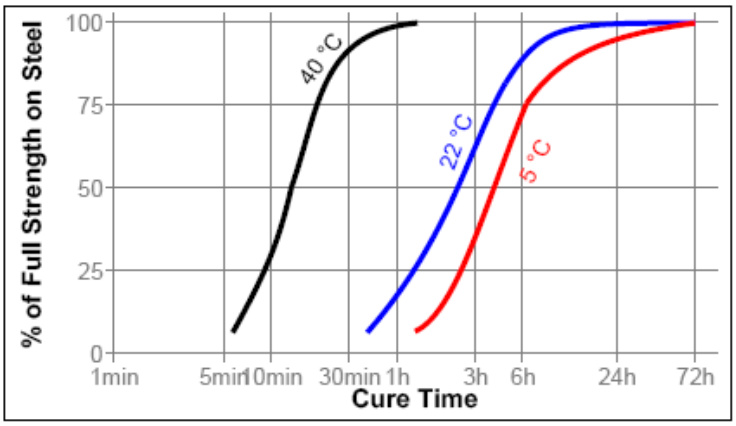
Techsil Ltd
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

Cure Speed vs. Bond Gap

The rate of cure will depend on the bond gap. Threaded fasteners gap size is dependent on thread type and quality. The graph below shows shear strength developed with time on steel collars and pins at 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 below shows the breakaway strength developed with time at different temperatures on M10 steel bolts and nuts and tested according to ISO 10964.



Cure speed vs. activator

Where the cure speed is unacceptably long or large gaps are present. An activator can be applied to the surface which will improve cure speed.

Typical performance of cured material

	Typical Value
Operating temp °C	-54°C - 230°C

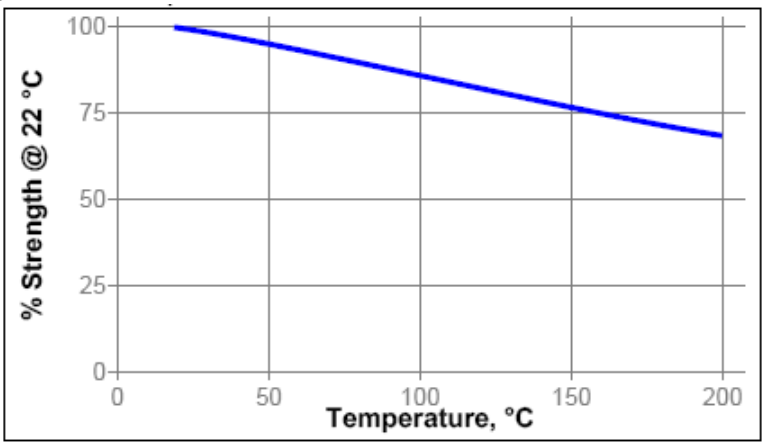
(After 24 hr at 20-25°C) on M10 steel nuts & bolts)

	Typical Value
Breakaway torque M10 steel bolts and nuts ISO 10964	20Nm
Prevail Torque M10 steel bolts & nuts ISO 10964	30Nm

Typical Heat Resistance

Hot Strength

Tested at temperature



Contact Details

Techsil Ltd
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22 °C.

		% of initial strength
Environment	**°C**	**720 h**
Air Reference	87	100
Motor oil (MIL-L-46152)	87	62
Gasoline	87	62
Water	87	58
Processing Temperature	87	87
Toluene	87	80
Phosphate Ester	87	70

Directions for Use

1. For optimum performance surfaces should be clean and free of grease.
2. If the material is an inactive metal consider using activator.
3. Shake the product thoroughly before use.
4. Apply several drops to the bolt & nut.
5. Assemble and tighten as required.
6. To prevent the clogging of the nozzle, do not let the tip touch metal surface during application.

For Disassembly

1. Remove with standard hand tools.
2. In circumstances where hand tools do not work, use localized 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.

Precaution

1. Use proper ventilation, avoid contact with skin and eyes.
2. If contact with skin occurs, rinse with warm water or dissolve gradually with appropriate debonder.
3. Do not try to remove forcibly.
4. If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
5. Keep well out of reach of children.

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. This product is not recommended for use on certain plastics.

Storage

Keep adhesive in a cool, dry place optimal storage 8°C-21°C, is recommended unless otherwise labelled. To prevent contamination of unused material, do not return any product to its original container. For specific shelf life information, contact Techsil Ltd

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

Contact Details

Techsil Ltd
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk