



# TECHNICAL DATA SHEET



## REMOVABLE SCREWLOCK PART NO. 10222 (10mL) 50222 (50mL)

### DESCRIPTION

**DynaGrip®** Removable Screwlock is a low strength anaerobic threadlocking material, which cures between engaged threads to form a unitized assembly that resists virtually all leakage, shock and vibration. The product is a single component, anaerobic liquid that cures when confined in the absence of air between close fitting metal surfaces. Ideal for small threads under 6mm (¼ inch) diameter nut and bolt assemblies. Fills gaps up to 0.15mm (0.006 inches). Applied prior to assembly. Eliminates need for stocking lock nuts and lock washers. Excellent chemical resistance with a temperature resistance range of -54°C to 148°C (-65°F to 300°F). Easily removable with hand tools for servicing requirements. Protects against thread corrosion.

### FEATURES

- No mixing
- No curing outside of joint
- Eliminates vibration issues
- Seals against leakage
- Can be adjusted or disassembled
- Cures without cracking or shrinking
- Prevents rusting of threads
- No torque compensation required during assembly

### TYPICAL APPLICATIONS

- Small set screws
- Small threaded nuts, bolts, screws, hexagonal and slot driven components, including keyed fasteners.
- Recommended for use on softer, non-ferrous metals, eg. Brass.



### PHYSICAL PROPERTIES

#### Monomer (Liquid)

Base Compound.....	Dimethacrylate Ester
Colour.....	Purple
Viscosity (cP @ 20°C/68°F).....	1600 cP
Flash Point (TCC).....	>93°C(200°F)
Gap Fill.....	0.15mm(.0006")
Corrosivity.....	None
Toxicity.....	Low
Specific Gravity (g/cc).....	1.1
Shelf Life @ 4°C(40°F).....	1 year unopened
Military Specifications.....	Mil-S-46163A
Curing Properties.....	Depends on environmental conditions and the substrates used

#### Polymer (Cured)

Locking Strength.....	Low
Service Temp. Range.....	-54°C to 148°C (-65°F to 300°F)
Appearance.....	Purple liquid
Full Cure Time.....	24 hours

## PERFORMANCE OF CURED MATERIALS

Bond strength after 24 hours at 20°C to 25°C on steel nuts and bolts.

	Average Value	Range
Breakaway Torque	7.9 N.m (70 in.lbs.)	4.52-11.29 N.m (40-100 in. lbs.)
Prevailing Torque	2.82 N.m (25 in. lbs.)	3.95-11.29 N.m (10-40 in. lbs.)

## CURING PERFORMANCE

The gap of the bond line will affect set speed. Smaller gaps tend to increase the speed. Activators can be applied to improve set speed but may also impair overall adhesive performance.

## SETTING TIME (20°C/68°F, 65% R.H.)

Substrate	Set time/Full cure
• Steel	10 min/24 hrs
• Brass	15 min/24 hrs
• Zn Dichromate	20 min/24 hrs
• Stainless Steel	20 min/24 hrs

## CHEMICAL RESISTANCE

Shear strength on steel after 500 hours.

Solvent	% Strength Retained
• Motor Oil	100
• Unleaded Gasoline	100
• Trichloroethane	100
• Brake Fluid	100
• Ethanol	100
• Acetone	100
• Water/Glycol Mix	80

## GENERAL INSTRUCTIONS

Surfaces to be bonded should be clean and dry and free of grease.

Product should be applied in enough quantity to fill all engaged threads. The product performs best in thin bond gaps. Very large gaps may create gaps, which will affect the cure speed and overall strength. Good contact is essential. An adequate bond develops in 15 to 45 minutes and maximum strength is attained in 24 hours.

**This product is not recommended for use in pure oxygen environments and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.**

This product is not designed for plastics, particularly thermoplastics where stress cracking of the plastic could result. It is recommended to confirm compatibility of the product with all substrates prior to use.

## STORAGE AND SHELF LIFE

When stored in the original unopened containers at or below 32°C (90°C), **DynaGrip®** Removable Screwlock has a shelf life of 12 months from date of shipment.

In Countries where high heat and humidity are a factor, special precautions must be taken. Store product in a covered, well-ventilated warehouse and avoid excessive heat conditions. Storage in high heat, high humidity conditions may reduce shelf life by up to 30%. Rotation of stock is an absolute necessity. Cartons should always be stacked upright. **DO NOT** stack cartons on their side. **NEVER** stack cartons more than 8 high. **DO NOT** store within 1 metre (4 feet) of roofline of the warehouse or storage building.

## GENERAL INFORMATION

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitable use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made.

It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application.

Likewise, if the application, product specifications or manner in which our products are used require government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

The supplier warrants only that its products will meet its specifications. There is no use, nor any other express or implied warranty. The user's exclusive remedy and the supplier's sole liability is limited to refund of the purchase price or replacement of any product when to be otherwise than as warranted. The supplier will not be liable for incidental or consequential damages of any kind.

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