



TECHNICAL DATA SHEET



PERMANENT THREADLOCKER PART NO. 10262 (10mL) 50262 (50mL)

DESCRIPTION

DynaGrip® Permanent Threadlocker is a single component, anaerobic liquid which cures when confined in the absence of air between close fitting metal surfaces. **DynaGrip®** Permanent Threadlocker is a high strength anaerobic threadlocking material that cures between engaged threads to form a unitized assembly that resists virtually all leakage, shock and vibration. Ideal for all 6mm to 19mm (¼ inch to ¾ inch) diameter nut and bolt assemblies where future disassembly is improbable. Fills gaps up to 0.25mm (0.010 inches). Provides a positive seal that resists most fluids. Prevents nuts, bolts and other fasteners from loosening due to vibration. Works in temperatures from -59°C to 148°C (-75°F to 298°F). Fixture tight in minutes. Protects against thread corrosion.



FEATURES

- Eliminates vibration issues
- Cures without cracking or shrinking
- Prevents rusting of threads
- Seals against leakage
- No mixing
- No curing outside of joint

TYPICAL APPLICATIONS

- Shock absorber bolts
- Frame bolts
- Cylinder block
- Rocker arm studs
- Ring gear bolts
- Fan hub bolts

PHYSICAL PROPERTIES

Monomer (Liquid)	
Base Compound.....	Dimethacrylate Ester
Colour.....	Red
Viscosity (cP @ 20 ⁰ C/68 ⁰ F).....	2500 cP
Flash Point (TCC).....	>93 ⁰ C(200 ⁰ F)
Gap Fill.....	0.25mm(.010")
Corrosivity.....	None
Toxicity.....	Low
Specific Gravity (g/cc).....	1.1
Shelf Life @ 4 ⁰ C(40 ⁰ F).....	1 year unopened
Military Specifications.....	Mil-S-46163A Typell GradeO
Curing Properties.....	Depends on environmental conditions and the substrates used
Polymer (Cured)	
Locking Strength.....	Medium
Service Temp. Range.....	-59 ⁰ C to 148 ⁰ C(-75 ⁰ F to 298 ⁰ F)
Appearance.....	Red liquid
Shear Strength (steel nuts and bolts).....	20689 KPa
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	21.46 N.m (190 in.lbs.)	14.68-28.24 N.m (130-250 in. lbs.)
Prevailing Torque	25.98 N.m (230 in. lbs.)	15.81-31.06 N.m (15.81-275 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. The use of an accelerator may reduce bond strength by up to 30%. Testing on the parts is recommended to measure the effect.

SETTING TIME (20°C/68°F, 65% R.H.)

Substrate	Set time/Full cure
• Steel	15 min/24 hrs
• Brass	30 min/24 hrs
• Zn Dichromate	25 min/24 hrs
• Stainless Steel	35 min/24 hrs

CHEMICAL RESISTANCE

Shear strength on steel after 500 hours.

Solvent	% Strength Retained
• Motor Oil	90
• Unleaded Gasoline	100
• Trichloroethane	90
• Brake Fluid	100
• Ethanol	90
• Acetone	95
• Water/Glycol Mix	95

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®** Permanent Threadlocker 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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