



# TECHNICAL DATA SHEET



## WICKING THREADLOCKER PART NO. 10290 (10mL) 50290 (50mL)

### DESCRIPTION

**DynaGrip®** Wicking 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. Because of its low viscosity and capillary action, the product wicks between engaged threads and eliminates the need to disassemble, apply product and then reassemble. The high prevailing torque provides vibration resistance to adjustment screws. Ideal for all threaded engagements less than or equal to 6.35mm ( 1/2 inch) in diameter. The product can also fill porosity in welds, castings and powder metal parts. Excellent chemical resistance with a temperature resistance range from -54°C to 177°C (-65°F to 350°F).

### FEATURES

- No mixing
- No disassembly
- Eliminates vibration issues
- Seals porosity
- Cures without cracking or shrinking
- Can be adjusted or disassembled
- Seals against leakage
- Prevents rusting of threads
- No curing outside of joint

### TYPICAL APPLICATIONS

Prevents loosening and leakage of pre-assembled threaded fasteners and as a porosity sealant. Particularly suitable for applications such as:

- Pre-assembled threaded assemblies
- Adjustment screws
- Seal brazed joints in cooling systems
- Seal porous welds
- Seal porosity on brake unit housings



### PHYSICAL PROPERTIES

#### Monomer (Liquid)

Base Compound.....	Dimethacrylate Ester
Colour.....	Green
Viscosity (cP @ 20°C/68°F).....	15 cP
Flash Point (TCC).....	>93°C (200°F)
Gap Fill.....	0.07mm (.003")
Corrosivity.....	None
Toxicity.....	Low
Specific Gravity (g/cc).....	1.07
Shelf Life @ 4°C (40°F).....	1 year unopened
Military Specifications.....	Mil-S-46163A Type III Grade R
Curing Properties.....	Depends on environmental conditions and the substrates used

#### Polymer (Cured)

Locking Strength.....	High
Service Temp. Range.....	-54°C to 148°C (-65°F to 300°F)
Appearance.....	Green liquid
Shear Strength (steel nuts and bolts).....	13789 kPa
Full Cure Time.....	24 hours

## PERFORMANCE OF CURED MATERIALS

Bond strength after 24 hours at 20<sup>0</sup> C to 25<sup>0</sup> C on steel nuts and bolts.

	Average Value	Range
Breakaway Torque	11.29 N.m (100 in.lbs.)	4.52-16.94 N.m (40-150 in. lbs.)
Prevailing Torque	28.24 N.m (250 in. lbs.)	16.94-35.02 N.m (150-310 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<sup>0</sup> C/68<sup>0</sup> F, 65% R.H.)

Substrate	Set time/Full cure
• Steel	10 min/24 hrs
• Brass	20 min/24 hrs
• Zn Dichromate	55 min/24 hrs
• Stainless Steel	60 min/24 hrs

## CHEMICAL RESISTANCE

Shear strength on steel after 500 hours.

Solvent	% Strength Retained
• Motor Oil	90
• Unleaded Gasoline	85
• Trichloroethane	90
• Brake Fluid	90
• Ethanol	85
• 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**<sup>®</sup> Wicking 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 suitability of 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.

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