

# TECHNICAL DATA SHEET

## Medium Strength Gel Threadlocker-Blue



Cyclo Industries, Inc

C-24006

401 Maplewood Dr • Jupiter, FL 33458 • 561-775-9600

### PRODUCT DESCRIPTION

**Cyclo®** Medium Strength Gel Threadlocker-Blue is a **medium strength** anaerobic threadlocking gel. The product, like its liquid counterpart, is a one component, anaerobic gel that cures when confined in the absence of air between close fitting metal surfaces, ideal for all 10mm to 25mm (1/4 inch to 1 inch and greater) diameter threaded assemblies. Excellent chemical resistance and temperature resistance range of -54°C to +149°C (-65°F to +300°F). The assembly is easily removable with hand tools for servicing requirements.

### PRODUCT BENEFITS

#### Improved Reliability

- Eliminates vibration loosening
- Seals against leakage
- Prevents rusting of threads
- Designed for use on vertical or hard-to-reach applications
- Cures without cracking or shrinking
- Adjusts or disassembles with hand tools

#### Easy Application

- Gel-type product does not drip when applied
- Single component
- No curing outside of joint
- Resists dripping from threads during assembly
- No torque compensation required during assembly

### TYPICAL APPLICATIONS

Prevents loosening and reliably locks and seals all threaded fastener assemblies 6mm to 25mm (1/4" to 1") where service removability is important.

### DIRECTIONS FOR USE

#### For assembly

1. Clean all threads (bolt and hole) with a cleaning solvent such as a compliant **Cyclo®** Brake and Parts Cleaner and allow to dry.
2. Remove the protective cap.
3. Apply threadlocker to the engagement area of the male fitting (usually the leading 5 to 6 threads).
4. Assemble parts and tighten to recommended torque.
5. Replace protective cap.

#### For Cleanup

1. Residual liquid films and/or fillets outside the joint are readily soluble in a compliant **Cyclo®** Brake and Parts Cleaner.
2. Cured product can be removed with a combination of soaking in **Cyclo®** Gasket Remover and mechanical abrasion such as a wire brush.

#### For Disassembly

1. Remove with standard hand tools.
2. In the rare instance where hand tools do not work, because of excessive engagement length, apply localized heat to nut or bolt to approximately 232°C (450°F). Disassemble while hot.

#### For Reassembly

1. Remove loose product from nut and bolt following cleanup procedure above.
2. Apply activator to all threads, regardless of metal type.
3. Assemble and tighten as usual.

### PROPERTIES OF UNCURED MATERIAL

	Typical Value
Appearance	Opaque Blue Fluorescent Gel
Specific Gravity	1.15
Viscosity @ 25°C, cP	
Brookfield RVF, spindle #3, @ 20 RPM	Gel
Flash Point (TCC), °C (°F)	>93 (>200)

### PERFORMANCE OF CURED MATERIAL

(After 24 hr at 72°F on 3/8-16 steel Grade 2 Nuts and Grade 5 bolts)

	Typical Value	Range
Breakaway Torque, Nm, (in.lbs)	13 (115)	11 to 15 (100 to 130)
Prevail Torque, Nm, (in.lbs)	6 (50)	4 to 7 (40 to 60)

Where Breakaway Torque is the force required to initiate the fastener movement and Prevail Torque is the force required to disassemble the fastener once Breakaway Torque has occurred.

### TYPICAL CURING PERFORMANCE

#### Cure speed vs. substrate

The rate of cure will depend on the material used. Cyclo® High Strength Threadlocker-Red will react faster and become stronger with **Active Metals**. **Inactive Metals** will require the use of **Cyclo®** C-930 Surface Preparation to obtain maximum strength and cure speed at room temperature.

#### Active Metals

Soft Steel Iron  
Copper  
Brass  
Manganese  
Bronze  
Nickel

#### Inactive Metals

Bright Platings  
Anodized Surfaces  
Titanium  
Zinc  
Pure Aluminum  
Stainless Steel

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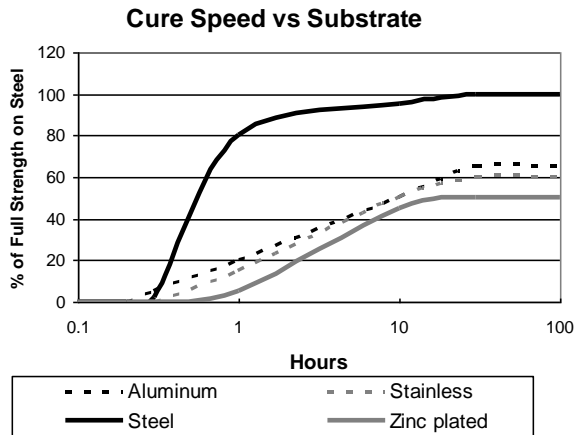
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Aluminum Alloy Cadmium

The graph below shows the breakaway strength developed with time on 3/8" – 16 Grade 5 bolts and Grade 2 nuts for different materials.



the plastic could result). It is recommended to confirm compatibility of the product with such substrates.

### ORDERING INFORMATION

<b>Part Number</b>	<b>Container Size</b>
C-24006	6 ml tube

### STORAGE

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° to 28°C (46° to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container.

### Cure speed vs. temperature

The rate of cure will depend on the ambient temperature. **Full cure** is attainable in 24 hours at room temperature, 22°C (72°F), or 1 hour at 93°C (200°F).

### TYPICAL ENVIRONMENTAL RESISTANCE

#### Temperature Resistance

Product temperature range from -54°C to +149°C (-65°F to +300°F). The breakaway and prevailing torque values decrease as temperature increases, however the assembly remains effective against vibration and leakage.

#### Chemical / Solvent Resistance

Aged under conditions and tested at 22°C(72°F)

3/8-16 steel nuts & bolts

% Initial Strength retained after time

<b>Temp °C(°F)</b>	<b>500hr</b>
Hot air 150(302)	100%
Motor oil (5W30SL) 125(257)	100%

### GENERAL INFORMATION

**This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).**

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of

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