

## **Technical Data Sheet**

**Product**  
Threadlocker Anaerobic Adhesive TL-290

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### **Product Description**

Threadlocker Anaerobic Adhesives are one-component anaerobic adhesives that cure and seal threaded assemblies that meet a wide range of applications to prevent vibration loosening and/or leakage. All products provide excellent vibration, corrosion, and shock resistance. Engineered to provide different strengths, temperatures, nut/bolt sizes, and other requirements, some threadlockers allow removal and meet various selections depending on the specific application.

### **Product Features**

- Threadlocker TL-290 is a low viscosity to provide a wicking action, medium strength threadlocker that locks and seals small compression and ferrule fittings with service temperature up to 400°F. It is useful for pre-assembled parts.
- Prevent corrosion
- Fluorescence
- Liquid (before cure)
- Shock and vibration resistance
- Fast setting
- 24 hour cure at room temperature

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Uncured Physical Properties

Property	Values	Notes
Color	Green	
Chemistry	Dimethacrylate cP	
Viscosity	10 to 30 cP	Viscosity measured by Brookfield Viscometer RVT Spindle #1 @ 30 rpm
Fixture Time	25min (avg time) (10-30min range)	Reference ISO 10964

Typical Mixed Physical Properties

Cure Speed:



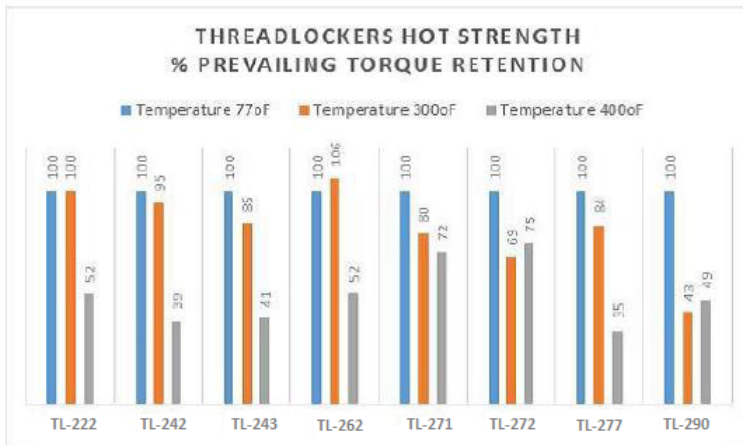
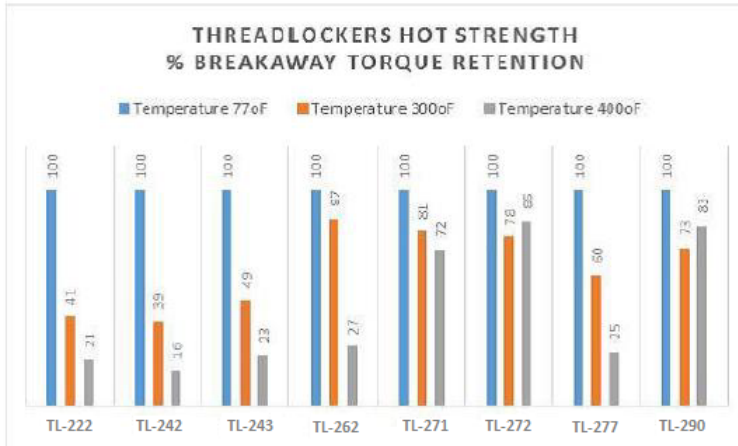
Typical Cured Characteristics

Property	Values	Test Condition
Temperature Range	-54 to 149 °C	-65 to 300 °F
Color	Green	Cured

Typical Performance Characteristics

Property	Values	Notes
Breakaway Torque	95in-lb - typical value (20-150in-lb range)	Reference ISO 10964. To convert to (N.m) divide (in.lb) by 8.851.
Prevailing Torque	265in-lb- typical value (150-500in-lb range)	Reference ISO 10964. To convert to (N.m) divide (in.lb) by 8.851.
Strength	Medium	

Hot Strength % Retention



## Handling/Application Information

### Directions for Use

Threadlocker Anaerobic Adhesives are not recommended for use on most plastics due to potential cracking of plastic parts. Also, they are not recommended for use in piping systems that contain pure oxygen or an oxygen-rich environment, chlorine, or strong oxidizing substances.

For Assembly:

1. Ensure parts are clean, dry and free from oil, grease and dirt. For best results, clean and dry parts with solvent (Activator can also be used on inactive surfaces or to accelerate the cure on active surfaces.)
2. If not sure of surface type, always use activator. Refer to Material surface Activity and Cure Speed section for more information.
3. Shake the adhesive bottle well before use.
4. Avoid touching the metal surfaces with the bottle tip since the metal ions may react with the adhesive upon contact and eventually may clog the bottle tip.
5. Apply adhesive onto the threaded part where the contact area will be in the final assembly. For larger parts, use more adhesive and rotate the threaded part to spread adhesive evenly around contact area.
6. For through holes, apply several drops of adhesive onto the bolt at the nut engagement area. For blind holes, apply several drops of the adhesive down the internal threads to the bottom of the hole.
7. Assemble the nut / fastener and tighten as required.
8. Allow assemblies to set for sufficient time so that handling strength or full cure will occur before further processing or testing

For Disassembly:

1. Loosen or remove with regular hand tools.
2. If hand tools do not work due to the assembled parts being well tightened, apply localized heat (approx.. 400°F / 254°C) to the nut or bolt and disassemble while parts are still hot. Use extreme caution when working with heat sources (e.g. heat gun, flames, etc.)

### Storage and Shelf Life

Store product in cool, dry area out of direct sunlight

Threadlocker Anaerobic Adhesives have a shelf life of 12 months when stored at 60° to 80°F (16° to 27°C) in the original unopened container.

### ISO Statement

This product was manufactured under a quality system registered to ISO 9001 standards.

### Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product.

### Information

**Technical Information:** The technical information, guidance, and other statements contained in this document are based upon records, tests, or experience to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information.

**Product Selection and Use:** Many factors beyond control and uniquely within user's knowledge and control can affect the use and performance of a product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, will not be liable for any loss or damage arising from or related to the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

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