

June, 2015

## 3M™ Scotch-Weld™ Threadlocker Anaerobic Adhesive TL70

### Product Description

3M™ Scotch-Weld™ 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

- 3M™ Scotch-Weld™ Threadlocker TL70 is a high strength threadlocker that locks all metal fasteners and thus prevent vibration loosening and leakage through the applications where maximum strength is needed. TL70 prevents corrosion of 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	Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.
Chemistry	Dimethacrylate cP	
Viscosity	400 to 900 cP	Brookfield Viscometer spindle #3 at 2.5 rpm
Fixture Time	13min (avg time) (10-30min range)	Reference ISO 10964

### Typical Mixed Physical Properties

#### Cure Speed:



### Typical Cured Characteristics

**Temperature Range:** -54 to 149°C

Conditions

Test Condition : Continuous

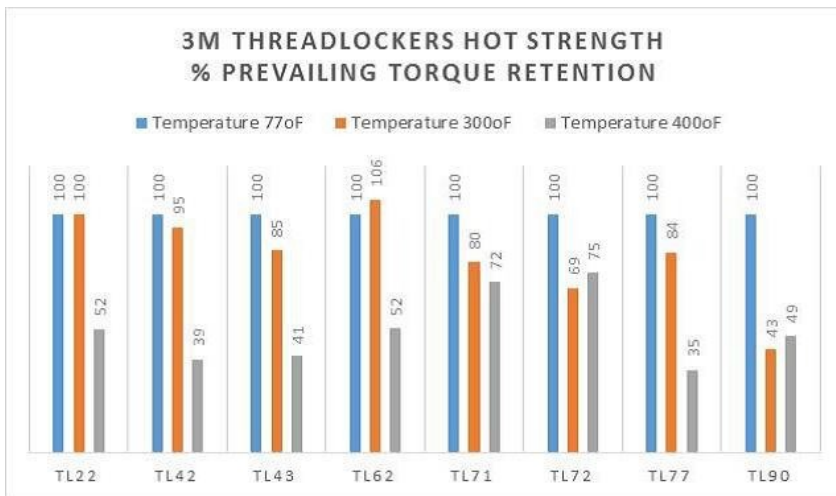
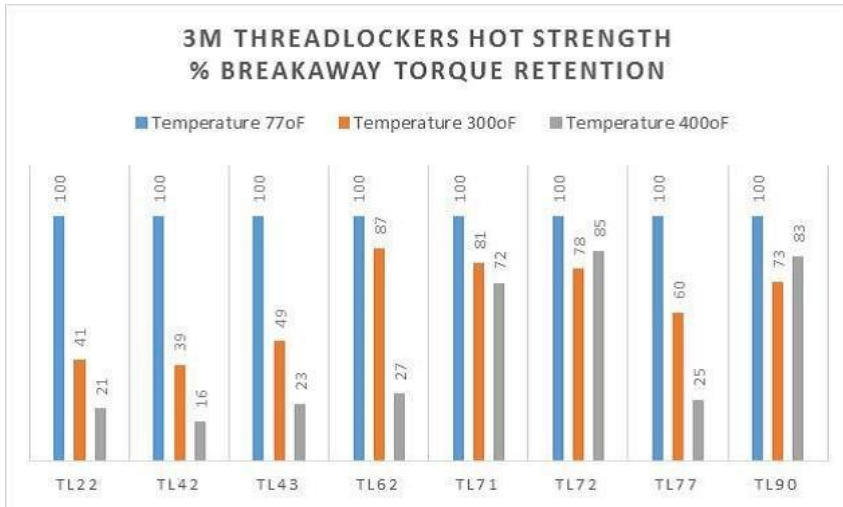
### Typical Physical Properties

Property	Values	Attribute Modifier
Color	Green	Cured
*Note	Not available in North and South America	

**Typical Performance Characteristics**

Property	Values	Notes
Breakaway Torque	210in-lb- typical value (150-355in-lb range)	Reference ISO 10964. To convert to (N.m) divide (in.lb) by 8.851.
Prevailing Torque	360in-lb - typical value (150-505in-lb range)	Reference ISO 10964. To convert to (N.m) divide (in.lb) by 8.851.
Strength	High	

**Hot Strength % Retention**



# 3M™ Scotch-Weld™ Threadlocker Anaerobic Adhesive TL70

## Handling/Application Information

### Directions for Use

3MTM Scotch-Weld™ 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 or 3MTM Scotch-Weld™ Activator. (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

3MTM Scotch-Weld™ 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.

### Trademarks

3M and Scotch-Weld are trademarks of 3M Company.

### References

### Safety Data Sheet (SDS)

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=TL70](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=TL70)

### Family Group

	TL22	TL42	TL43	TL62	TL70	TL71	TL72	TL77	TL90
Color Attribute Modifier: Cured	Purple	Blue	Blue	Red	Green	Red	Red/Orange	Red	Green

### 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. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

## Information

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