



## PRODUCT DATA SHEET

High Strength

**RED**

# THREADLOCKER

Anaerobic Adhesive

Stock No. B-20150



BTS Red Threadlocker is a high strength, single-component anaerobic threadlocking adhesive. It locks and seals threaded and press fit assemblies to prevent leakage and loosening due vibration. Suitable for use in high stress, shock, and vibration applications. It resists oils, glycol & water, transmission fluid & mild acids.

Conforms to MIL-S-46163A, Type I Grade K; ASTM D-5363 AN 0221.

Meets or Exceeds OEM Specs. Compare to LOCTITE 271.

V.O.C.: Compliant with all U.S. State and Federal Regulations

### PERFORMANCE

**Fastener Size:** 3/8" to 1" (9.5-25mm)  
**Torque: Breakaway/Prevail:** 140-320 in.-lbs. / 200-440 in.-lbs.  
**Temperature Range:** -65° to 300° F  
**Viscosity:** 500 +/- 200 cPs  
**Shelf Life at 68°F/20°C:** 12 months unopened  
**Gap Fill:** .007

#### Set Time/Full Cure @ 68° F, 65% R.H.\*:

**Steel:** 15 Min./24 Hours  
**Brass:** 15 Min./24 Hours  
**Zinc-Plated:** 20 Min./24 Hours  
**Stainless Steel:** 20 Min./24 Hours

\*Rate of cure depends on environmental conditions and substrate materials.

### APPLICATIONS

All types of threaded connectors to ensure permanent fixing and sealing, especially high vibration and pressurized application. Excellent for all types of engines & pumps and machinery including crankshaft bearing caps, end plates, head and exhaust studs, engine mounts, fasteners and wheel studs. Not recommended for plastic, or for use in pure oxygen environments and/or oxygen rich systems. It should not be used as a sealant for chlorine or other strong oxidizing materials.

### SPECIFICATIONS

**Carton Pack:** 12

**Contents:** .34 fl. oz. (10 mL)

### PHYSICAL/CHEMICAL CHARACTERISTICS

**Boiling Point:** >298°F/148°C

**Specific Gravity:** (H<sub>2</sub>O=1): 1.10

**Vapor Density:** Not Determined

**Evaporation Rate:** Not Determined

**Solubility in Water:** Not Miscible or difficult to mix.

**Appearance/Odor:** Red Liquid; Mild Organic Odor

**Flash Point:** >200° F/93°C

**Method Used:** TOC

**Fixture & Cure Time:** Initial fixture time: 10-20 min. **Full cure:** 24 hours

## SOLVENT RESISTANCE

<u>SOLVENT</u>	<u>EXAMPLE</u>	<u>RESISTANCE*</u>
Alcohol	Ethanol, Methanol	+++
Ester (aromatic)	Ethylacetate	---
Ketone (aromatic)	Acetone, Benzophenone	---
Aliphatic hydrocarbon (alkanes)	Petrol, Heptanes, Hexane	++-
Aromatic hydrocarbons	Benzyl, Toluol, Xylol	++-
Halogenated hydrocarbons	Methylenchloride, Chloroform, Chlorobenzol	---
Weak aqueous acid phosphoric acid	Nitrite, muriatic acid, sulphuric acid,	+++ (--- if concentrated)
Weak aqueous base	Sodium hydroxide solution, caustic potash	+++ (--- if concentrated)

\*(+ = MORE RESISTANCE)

### 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 that 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. NOTE: 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.

**Curing Performance:** The gap size on the bond line will affect set speed. Smaller gaps tend to increase set speed. Activators may be applied to further improve set speed; however, that may also impair overall adhesive performance.

**Storage and Temperature for Use:** Products should be stored unopened in a cool, dry place out of direct sunlight. Products may be refrigerated for improved shelf life; however, it should be brought back to room temperature before use.

### NOTE:

The data contained herein are furnished for information only and are believed to be reliable. Apex International Group, Inc. cannot assume responsibility for the results obtained by others over whose method Apex does not control. It is the user's responsibility to determine suitability for the product or of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Apex specifically disclaims all warranties of merchantability or fitness for a particular purpose arising from sale or use of BTS products. Apex specifically disclaims any liability for consequential or incidental damages of any kind, including loss of profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Apex patents which may cover such processes or compositions. We recommend that each prospective user test the proposed application to determine its suitability for the purpose intended prior to incorporating any product or application in its manufacturing process using the data as a guide.

---

### **HMIS RATINGS**

Health	2	Reactivity	0
Flammability	1	Personal Protection	

---

*All information is subject to change. Not responsible for errors. We recommend you call to verify product specifications before ordering.*

## **Formulating For Professionals for Over 50 Years**

BTS Industries, APEX International Group, Inc

[www.apexig.com](http://www.apexig.com)

(561) 656-0850 • Fax: (561) 656-0870 • email: [apex@apexig.com](mailto:apex@apexig.com)

R.3/18

© 2017 Apex International Group, Inc.

BTS® is sold throughout the world under the APEX registered trademark BTS.



Made with Pride  
in the U.S.A.