



# TECHNICAL DATA SHEET



#### **Henkel Corporation**

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# Item # Package Size 209741 Carded Tube 0.20 fl. oz.

# **DESCRIPTION**

Loctite® Threadlocker Red 271™ is designed for the permanent locking and sealing of threaded fasteners. The product cures when confined in the absence of air between close fitting metal surfaces. It protects threads from rust and corrosion and prevents loosening from shock and vibration. It is only removable once cured by heating up parts to 500°F (260°C).

#### **RECOMMENDED FOR:**

Use on metal fasteners up to 1" (25 mm) in diameter such as bolts on decks, ready-to-assemble furniture, mounts, rings, gear bolts and frame bolts.

# **NOT RECOMMENDED FOR:**

- Use on plastic parts, particularly thermoplastic materials where stress cracking of the plastic could result.
- Use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

#### **FEATURES & BENEFITS:**

Feature	Benefits	
Protects threads	Prevents rusting of threads	
High strength	Permanent seal, prevents tampering	
Locks threads	Prevents loosening of metal fasteners caused by vibrations	

# **DIRECTIONS**

# **Tools Typically Required:**

Utility knife, damp cloth.

# Safety Precautions:

Keep out of reach of children.

#### **Preparation:**

Protect work area. Parts to be sealed must be clean and dry. Shake the product thoroughly before use. Note: To prevent the product from clogging in the nozzle, avoid touching the bottle tip to the metal surface.

#### **Application:**

For Thru Holes:

Apply several drops of the product onto the bolt at the nut engagement area.

# For Blind Holes:

Apply several drops of the product down the internal threads to the bottom of the hole.

Loctite® Threadlocker Red 271<sup>™</sup> T\_LKR\_RED Page 1 of 3

Revision: May 22, 2010 Supersedes: September 21, 2009 Ref. #: 120271

For Sealing Applications:

Apply a 360° bead of product to the leading threads of the male fitting, leaving the first thread free. Force the material into the threads to thoroughly fill the voids. For bigger threads and voids, adjust product amount accordingly and apply a 360° bead of product on the female threads also.

Assemble parts and tighten as required. Sets in approximately 10 minutes and fully cures in 24 hours.

#### Clean-up

Clean adhesive residue immediately with a damp cloth. Cured product can be removed with a combination of soaking in methylene chloride and mechanical abrasion such as a wire brush.

For disassembly, heat parts up to 482°F (250°C) and separate parts while hot.

# STORAGE AND DISPOSAL

Not damaged by freezing. Close the tube tightly after each use. Store product in the unopened container in a dry location. Optimal storage is between 46°F (8°C) to 70°F (21°C).

# **LABEL PRECAUTIONS**

Contains methacrylate ester. Avoid eye and skin contact. For eye contact, flush with water for 15 minutes; call a physician. For skin contact, wash thoroughly with soap and water. If swallowed, do not induce vomiting. Obtain medical attention. **KEEP OUT OF THE REACH OF CHILDREN.** 

#### Refer to the Material Safety Data Sheet (MSDS) for further information

#### **DISCLAIMER**

The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Purchasers should test the products to determine acceptable quality and suitability for their own intended use. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

### **TECHNICAL DATA**

Typical Uncured Physical Properties		Typical Application Properties	
Color:	Red	Application Temperature:	Apply above 50°F (10°C)
Appearance:	Liquid	Odor:	Minimal
Base:	Methacrylate ester	Set Time:	10 minutes
Specific Gravity:	1.10	Cure Time:	24 hours
Viscosity:	500 cps @ 10 rpm		
Flashpoint:	> 200°F (93°C)		
VOC Content:	< 8 g/L (0.82% by weight)		
Shelf Life:	24 months from date of manufacture (Unopened)		
Lot Code Explanation:	For example:		
(Lot code stamped on crimped end of tube)	<b>7G</b> AC98873		
	7 = Last Digit in the Year of Manufacture 7 = 2007 (i.e. 7 = 2007, 8 = 2008, 9 = 2009, etc)		
	G = Month within Year of Manufacture G = 7 <sup>th</sup> Letter of the Alphabet G = July (i.e. A = Jan, B = Feb, C = March, etc)		

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# **Typical Cured Performance Properties**

Color: Red

Service Temperature: -65°F (-54°C) to 300°F (149°C)

<u>Cured form:</u> Non-flammable, hard solid

Clean-Up: Uncured: Wipe with damp cloth.

Cured: Remove with a combination of soaking in methylene chloride and

mechanical abrasion such as a wire brush.

For disassembly: Heat parts up to 482°F (250°C) and separate parts while hot.

After 90 minutes @ 72°F (22°C):

Breakaway Torque:

3/8 X 16 steel nuts (grade 2) and bolts (grade 5) 75 to 225 lb·in (8.5 to 25.4 N·m)

Prevail Torque:

3/8 X 16 steel nuts (grade 2) and bolts (grade 5) 150 to 300 lb·in (16.9 to 34 N·m)

After 24 hours @ 72°F (22°C):

Breakaway Torque:

 3/8 X 16 steel nuts (grade 2) and bolts (grade 5)
 150 to 300 lb·in (16.9 to 34 N·m)

 3/8 X 16 cadmium nuts and bolts
 40 to 125 lb·in (4.5 to 14.1 N·m)

 3/8 X 16 zinc nuts and bolts
 40 to 125 lb·in (4.5 to 14.1 N·m)

 M10 steel nuts and bolts
 150 to 350 lb·in (17 to 40 N·m)

Prevail Torque:

 3/8 X 16 steel nuts (grade 2) and bolts (grade 5)
 200 to 355 lb·in (22.6 to 40 N·m)

 3/8 X 16 cadmium nuts and bolts
 150 to 300 lb·in (16.9 to 34 N·m)

 3/8 X 16 zinc nuts and bolts
 150 to 300 lb·in (16.9 to 34 N·m)

 M10 steel nuts and bolts
 200 to 350 lb·in (23 to 40 N·m)

Specifications: Tested to the requirements of:

Military Specification Mil-S-46163A

ASTM D 5363