



# TECHNICAL DATA SHEET

**LOCTITE**

## THREADLOCKER RED 271

Henkel Corporation  
Professional and Consumer Adhesives  
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Item #	Package	Size
209741	Carded Tube	0.20 fl. oz. (6 ml)

### DESCRIPTION:

Loctite® Threadlocker Red 271™ is designed for the permanent locking and sealing of threaded fasteners. The product cures anaerobically, when there is an 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 450°F (232°C).

### RECOMMENDED FOR:

Use on metal fasteners up to 1" (25mm) in diameter in a wide variety of applications including:

- Automotive** – Internal engine, auto frame, auto suspension, wheel studs
- Maintenance** – Heavy machinery, structural fasteners, heavy conveyors, material movers
- Home** – Structural bolts, handrails, play sets, H.D. equipment

### LIMITATIONS

- Not for use on plastic parts, particularly thermoplastic materials where stress cracking of the plastic could result
- Not 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
- A primer is needed if two inactive metals are used
- Do not use in applications requiring "food safe" locking and sealing of fasteners

### FEATURES & BENEFITS:

Feature	Benefits
Protects threads.....	Prevents rusting of threads
Medium strength.....	Can be removed with hand tools
Locks threads.....	Prevents loosening of metal fasteners caused by vibrations

### TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<b>Color:</b>	Red	<b>Application Temperature:</b>	Apply above 50°F (10°C)
<b>Appearance:</b>	Liquid	<b>Odor:</b>	Minimal
<b>Base:</b>	Dimethylacrylate ester	<b>Set Time:</b>	10 minutes on active metals (steel). Longer for less active metals.
<b>Specific Gravity:</b>	1.10	<b>Cure Time:</b>	24* hours *Cure time is dependent on temperature, and type of metal being bonded
<b>VOC Content</b>	7.81 g/l, SCAQMD	<b>Viscosity:</b>	400-600 cP
<b>Flashpoint:</b>	>199.9°F (93°C)	<b>Lot Code Explanation:</b>	7GAA2230 Y= Last digit of year of manufacture (7= 2017) G= Month of Year (1=Jan., B= Feb., C= March, etc.) Example: 7G = July 2017
<b>Shelf Life:</b>	24 months from date of manufacture (unopened)		



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### Typical Cured Performance Properties

<b>Color:</b>	Blue	<b>Cured form:</b>	Non-flammable, hard solid.
<b>Service Temperature:</b>	-65°F (-54°C) to 300°F (149°C)	<b>Moisture Resistant:</b>	Yes

#### 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:** Shear with hand tools and remove with methylene chloride. In rare instances where hand tools do not work because of excessive engagement length, apply localized heat to nut or bolt to approximately 250°C and disassemble while hot.

#### Adhesive Properties:

##### 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 (ISO 10964):

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

###### Prevail Torque (ISO 10964):

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)

##### Applicable Specifications:

Tested to the requirements of

- Military Specification Mil-S-46163A
- ASTM D 5363

### Chemical/Solvent Resistance, aged under conditions indicated and tested @ 22°C

	Temperature	% of initial strength
Environment	°F	1000 h
Motor Oil (MIL-L-46152)	257	75
Unleaded gasoline	72	95
Leaded gasoline I	72	100
Brake fluid	72	100
Ethanol	72	95
Acetone	72	95
1,1,1 Trichloroethane	72	95
Water/glycol 50/50	189	85



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## 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.

#### *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:** shear with standard hand tools and remove with methylene chloride. In rare instances where hand tools do not work because of excessive engagement length, apply localized heat to nut or bolt to approximately 482°F (250°C). Disassemble 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

**WARNING: Contains methacrylate ester.** May cause allergic skin reaction and eye irritation. Avoid eye and skin contact. Avoid breathing vapors. Use only with adequate ventilation.

**FIRST AID:** For eye contact, flush with water for 15 minutes; call a physician. For skin contact, wash thoroughly with soap and water. If inhaled, move to fresh air. If swallowed, do not induce vomiting. Obtain medical attention. **KEEP OUT OF REACH OF CHILDREN.**



**WARNING: Cancer – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

**Refer to the Safety Data Sheet (SDS) 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. Henkel recommends purchasers/users should test the products to determine acceptable quality and suitability for the intended use. All adhesive/sealant applications should be tested under simulated or actual end use conditions to ensure the adhesive/sealant meets or exceeds all required project specifications. Since assembly conditions may be critical to adhesive/sealant performance, it is also recommended that testing be performed on specimens assembled under simulated or actual production conditions. 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.



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