

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 Use

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

Features

- Protects threads
- Medium strength
- Locks threads

Benefits

- Prevents rusting of threads
- Can be removed with hand tools
- Prevents loosening of metal fasteners caused by vibrations

Technical Data

Typical Uncured Physical Properties		Typical Application Properties	
Colour:.....	Red	Application Temperature:..	Apply above 10°C
Appearance:.....	Liquid	Odour:.....	Minimal
Base:.....	Dimethyl acrylate ester	Set Time:.....	10 minutes on active metals (steel). Longer for less active metals
Specific Gravity:.....	1.10	Cure Time:.....	24* hours *Cure time is dependent on temperature and type of metal bonded
VOC Content:.....	7.81 g/l, SCAQMD	Viscosity:.....	400 – 600 cP
Flashpoint:.....	93°C		
Shelf Life:.....	24 months from date of manufacture (unopened)		

Typically Cured Performance Properties

Colour:	Blue	Cured Form:	Non-flammable, hard solid
Operating Temperature:	-54°C to +149°C	Moisture Resistant:	Yes

Adhesive Properties

After 90 minutes @ 22°C

Breakaway Torque:
3/8 x 16 steel nuts (grade 2) and bolts (grade 5)..... 75 to 225 PSI (8.5 to 25.4 Nm)

Prevail Torque:
3/8 x 16 steel nuts (grade 2) and bolts (grade 5)..... 150 to 300 PSI (16.9 to 34 Nm)

After 24 hours @ 22°C

Breakaway Torque (ISO 10964):
3/8 x 16 steel nuts (grade 2) and bolts (grade 5)..... 150 to 300 PSI (16.9 to 34 Nm)
3/8 x 16 cadmium bolts and nuts..... 40 to 125 PSI (4.5 to 14.1 Nm)
3/8 x 16 zinc bolts and nuts..... 40 to 125 PSI (4.5 to 14.1 Nm)
M10 black oxide steel bolts and nuts..... 150 to 350 PSI (17 to 40 Nm)

Prevail Torque (ISO 10964):
3/8 x 16 steel nuts (grade 2) and bolts (grade 5)..... 200 to 355 PSI (22.6 to 40 Nm)
3/8 x 16 cadmium bolts and nuts..... 150 to 300 PSI (16.9 to 34 Nm)
3/8 x 16 zinc bolts and nuts..... 150 to 300 PSI (16.9 to 34 Nm)
M10 black oxide steel bolts and nuts..... 200 to 350 PSI (23 to 40 Nm)

Applicable Specifications

Tested to the requirement of:

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

Application Guide

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

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

Sealing procedure: 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.

Storage and Disposal

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



Lot Code Explanation: YGAA2230

Y=Last digit of year of manufacture (7-2017)

G=Month of Year

(1=Jan., B=Feb., C=March...)

Preparation & Applications

- **Tools:** Hydrogenated rayon cloth to pick up soluble soils on surface and utility knife
- **Clean:** Use non-toxic patented CB7 citrus solvent available from the your Loctite supplier to clean the surface of soluble soils
- **Preparation:** Protect work area. Parts to be sealed must be clean and dry

Cleaning-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 250°C. Disassemble while hot.

Methylene chloride* is a OSHA considered carcinogen. Short term exposure to high concentrations may cause nausea, mental confusion, lightheadedness, vomiting and headache.

KEEP OUT OF REACH OF CHILDREN

Chemical / Solvent Resistance, aged under conditions indicated and tested @22°C		
Environment	Temperature °C	% of initial strength 1000 hours
Motor Oil (MIL-L-46152)	125	75
Unleaded Gasoline	22.2	95
Leaded Gasoline I	22.2	100
Brake Fluid	22.2	100
Ethanol	22.2	95
Acetone	22.2	95
1,1,1 Trichloroethane	22.2	95
Water / Glycol 50/50	87.2	85

HEALTH and SAFETY PRECAUTIONS

WARNING: Contains Methacrylate Ester.

May cause allergic skin reaction and eye irritation. Avoid eye and skin contact. Avoid breathing vapours. Use only with adequate ventilation.

FIRST AID:

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



WARNING: CANCER – www.P65Warnings.ca.gov

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