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TECHNICAL DATA SHEET

LOCTITE® THREADLOCKER GREEN 290™

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Item #	Package	Size
233722	Carded Tube	0.20 fl. oz.

DESCRIPTION

Loctite® Threadlocker Green 290™ is designed for the locking and sealing of threaded fasteners. Due to it's low viscosity and capillary action, the product wicks between engaged threads and eliminates the need to disassemble prior to application. Loctite® Threadlocker Green 290™ cures when confined in the absence of air between close fitting metal surfaces. It prevents loosening from shock and vibration and leakage from shock and vibration and protects threads from rust and corrosion. The product can also be used to fill porosity in welds, casting and powder metal parts. Localized heating and hand tools are needed for disassembly.

RECOMMENDED FOR:

Use on metal fasteners 1/12" (2.2 mm) to 1/2" (12.7 mm) in diameter such as pre-assembled fasteners, instrumentation crews, carburetors and electrical connectors.

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.
- Pre-assembled threads in a blind hole

FEATURES & BENEFITS:

Feature	Benefits
Protects threads	Prevents rusting of threads
Medium to high strength	Prevents tampering
Low viscosity	Eliminates disassembly prior to application
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 Pre-Assembled Threaded Parts with Thru Holes:

1) Prior to assembly, clean all threads (bolt and hole) with a cleaning solvent and allow to dry.
2) For Thru-Holes: Apply several drops of the product at screw and body juncture.

For Porosity Sealing:

1) Clean area and apply localized heat to the area to approximately 250°F (121°C).
2) Allow to cool to approximately 185°F (85°C) and apply the product.

Sets in about 10 minutes. Fully cured 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

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:	Green	Application Temperature:	Apply above 50°F (10°C)
Appearance:	Liquid	Odor:	Minimal
Base:	Methacrylate ester	Fixture Time:	6 minutes
Specific Gravity:	1.08	Full Cure:	24 hours
Brookfield Viscosity: (25°C, Spindle 1, 50 RPM)	20 to 55 cps		
Flashpoint:	> 200°F (93°C)		
VOC Content:	< 135 g/L (12.6% by weight)		
Shelf Life:	24 months from date of manufacture (Unopened)		
Lot Code Explanation:	For example: **7G**AC98873		
(Lot code stamped on crimp end of tube)	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 = 7th Letter of the Alphabet G = July (i.e. A = Jan, B = Feb, C = March, etc)		

Typical Cured Performance Properties

Color:	Green
Service Temperature:	-65°F (-54°C) to 300°F (149°C)
Cured form:	Non-flammable, hard solid
Clean-Up:	Shear with hand tools and remove with methylene chloride or heat up to 500°F (260°C) to separate parts.
Coefficient of Thermal Expansion:	80 X 10^{-6} K^{-1}
Coefficient of Thermal Conductivity:	0.10 W/(m·K)
Specific Heat:	0.30 kJ/(kg·K)
Breakaway Torque (After 24 hours @ 72°C): *M10 steel nuts and bolts*	90 lb·in (10 N·m)
Prevail Torque (After 24 hours @ 72°C): *M10 steel nuts and bolts*	260 lb·in (29 N·m)
Breakloose Torque (After 24 hours @ 72°C): *M10 steel nuts and bolts, pre-torqued to 44 lb·in (5 N·m)*	270 lb·in (30 N·m)
Max. Prevail Torque (After 24 hours @ 72°C): *M10 steel nuts and bolts, pre-torqued to 44 lb·in (5 N·m)*	350 lb·in (40 N·m)
Compressive Shear Strength (After 24 hours @ 72°C):	Greater than or equal to 780 psi (5.4 N/mm^2)
Specifications:	▪ MIL-SPEC S-46163A for existing designs ▪ ASTM D5363 ▪ NSF/ANSI 61 ▪ NSF P1 ▪ CFIA