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# **Product Description Sheet**

# Product 220

**Industrial Products, February 2000** 

### PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> 220 is a low strength anaerobic threadlocking compound designed for pre or post-application to small plated fasteners. It prevents loosening while allowing adjustment or easy removal.

#### **TYPICAL APPLICATIONS**

Recommended for metal fasteners 2-56 through 10-32 screw sizes.

### **PROPERTIES OF UNCURED MATERIAL**

	Typical Value
Chemical Type	Methacrylate ester
Appearance	Blue Fluorescent Liquid
Specific Gravity	1.08
Viscosity, cP or mPa.s @ 77°F	20
(25°C) Cannon Fenske #150	
Flash Point (TCC), °C (°F)	>200°F (93°C)

#### TYPICAL CURING PERFORMANCE Cure speed vs. temperature

The rate of cure will depend on the ambient temperature. Full

cure is attainable in 24 hours at room temperature, 22°C (72°F), or 1 hour at 93°C (200°F).

Tuniaal Value

## PERFORMANCE OF CURED MATERIAL

After 24 hr at 72°F (22°C):

	i ypical value
Breakaway Torque on steel 3/8 x 16	
nuts and bolts in accordance with	
MIL-S-46163 procedures	
in.lb. (Nm)	85 (10)
Prevail Torque on steel 3/8 x 16	
nuts and bolts in accordance with	
MIL-S-46163 procedures	
in.lb. (Nm)	170 (20)
Where Breakaway Torque is the force requ	uired to initiate the fasten
The second second Barriel Territor is the feature in	and the state of t

her movement and Prevail Torque is the force required to disassemble the fastener once Breakaway Torque has occurred.

#### **GENERAL INFORMATION**

This product is not recommended 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.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

#### DISCOLORATION OF TREATED MATERIALS

Loctite adhesives/sealants are slightly acidic and may discolor some metals. However, this does not affect the performance of the products or the materials to which they are applied.

#### PROPER APPLICATION METHOD

Proper application on through-hole assemblies involves filling male, female or both threads with adhesive. For blind-hole (non thorugh-hole) assemblies, adhesive should be applied into the bottom of the hole. Fastener installation will hydraulically force adhesive upward into the threads.

#### MATERIAL COMPATIBILITY

Loctite anaerobic adhesives/sealants can be used in conjunction with all metals, glass ceramics and many thermoset plastics such as phenolic and polyester. Liquid adhesives will, however, soften and sometimes craze thermoplastics including ABS, polycarbonate, vinyl and methacrylates. They will also soften varnish and lacquer finishes. Most baked enamel finishes are not harmed by initial contact, but should be wiped clean within an hour of application. The cured Loctite 220 adhesive will not affect any of these materials.

#### DISASSEMBLY AND CLEANUP PROCEDURE

To aid in disassembly, Loctite anaerobic compounds can be weakened by heating to at least 500°F (260°C). Once disassembled, cured adhesive can be removed with Chisel® Gasket Remover 790 by following instructions. A solvent wipe with an organic or petroleum solvent will remove uncured adhesive outside the joint.

#### Storage

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° to 28°C (46° to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to For specific shelf-life information, its original container. contact your local Technical Service Center.

#### Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose 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, Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost 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 Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

NOT FOR PRODUCT SPECIFICATIONS.

THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY. PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.

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