LOCTITE 243

Medium strength threadlocker — Anaerobic, thixotropic, oil tolerant

Product Information

Product Name	LOCTITE 243
Brand	Henkel / Loctite
Technology	Acrylic
Chemical Type	Dimethacrylate ester
Appearance (uncured)	Blue liquid — Fluorescence positive under UV light
Components	One component — requires no mixing
Viscosity	Medium, thixotropic
Cure System	Anaerobic (cures in absence of air between close fitting metal surfaces)
Strength	Medium
Application	Threadlocking and sealing of threaded fasteners

Description

LOCTITE 243 is designed for locking and sealing threaded fasteners which require normal disassembly with standard hand tools. It cures when confined in the absence of air between close fitting metal surfaces, preventing loosening and leakage from shock and vibration. The thixotropic nature reduces migration of liquid after application. Provides robust curing on active metals (brass, copper) and passive substrates (stainless steel, plated surfaces). Offers high temperature performance and oil tolerance — tolerates minor surface contamination from cutting oils, lubrication, anti-corrosion and protection fluids.

Typical Properties of Uncured Material

Property	Value
Specific Gravity @ 25°C	1.08
Viscosity, Brookfield RVT @ 25°C	1,300 to 3,000 mPa·s (cP)
Viscosity, Cone & Plate @ 25°C, 129 s■¹	350 mPa·s (cP)
Flash Point	See SDS

Torque Strength (Cured 24 h @ 22°C)

Property	Size	Value
Breakaway Torque (ISO 10964)	M10 steel	26 N·m (230 lb.in)
Breakaway Torque (ISO 10964)	M6 steel	3 N·m (26 lb.in)
Breakaway Torque (ISO 10964)	M16 steel	44 N·m (390 lb.in)
Prevail Torque @ 180° (ISO 10964)	M10 steel	5 N·m (40 lb.in)
Prevail Torque @ 180° (ISO 10964)	M16 steel	13 N·m (115 lb.in)
Breakloose Torque (pre-torqued 5 N·m)	M10 steel	24 N·m (210 lb.in)
Breakloose Torque (pre-torqued 5 N·m, 1 week)	M10 zinc phosphate	26 N·m (230 lb.in)
Breakloose Torque (pre-torqued 5 N·m, 1 week)	M10 stainless steel	17 N·m (150 lb.in)
Compressive Shear Strength (ISO 10123)	Steel pins/collars	≥ 7.6 N/mm² (≥ 1,100 psi)

Chemical / Solvent Resistance (% initial strength)

Environment	°C	500 h	1000 h	5000 h
Motor oil	125	110	115	115
Unleaded gasoline	22	100	95	100
Brake fluid	22	105	110	125
Water/glycol 50/50	87	120	125	130
Ethanol	22	95	90	90
B100 Bio-Diesel	22	110	110	125
Sodium Hydroxide 20%	22	105	105	95
Phosphoric Acid 10%	22	110	105	110

Directions for Use

Assembly	Clean surfaces with Loctite solvent. Shake thoroughly. Apply several drops to bolt at nut engagement area (thru holes) or lower third of internal threads (blind holes). For sealing, apply 360° bead to leading threads. Assemble and tighten.
	Remove with standard hand tools. If needed, apply localized heat to ~250°C and disassemble while hot.
Cleanup	Cured product: soak in Loctite solvent and use mechanical abrasion (wire brush).

Storage

Store in unopened container in a dry location. Optimal: 8°C to 21°C. Below 8°C or above 28°C adversely affects properties. Do not return product to original container after use.