



Product Description

Epoxy-Lock® is a powerful film for locking and sealing preapplied adhesive. Epoxy-Lock is factory preapplied to either internal or external threads. It remains inert on the fastener until assembly of the threads mixes the resin. The resin fills the voids of the threads and cures to lock and seal the assembly.

Typical Applications

Epoxy-Lock prevents loosening through vibration to provide locking and sealing of threaded assemblies including:

- Ring gear bolts
- Head bolts
- Intake manifold bolts
- Transmission bolts

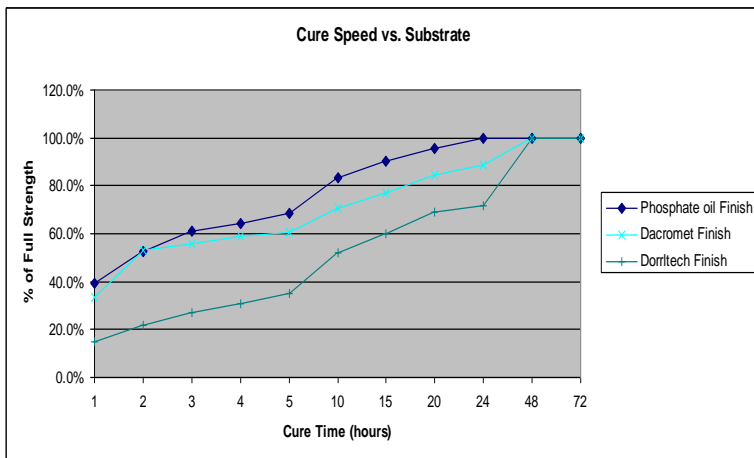
Properties of Uncured Material

Chemical Type	Epoxy
Appearance	Orange
Toxicity	Low

Curing Performance (fastener assembly)

Cure speed vs. substrate

The graph shows the rate of cure of an M-10 nut and bolt plated with various finishes. The breakaway strength was determined using industrial procedures.



Performance of Cured Material

	Typical Values
Prevailing on-torque	0.55 N-m
Breakaway torque	50 N-m
Temperature Range	-65°F to 400°F (-54°C to 200°C)
Cure time at Room Temp	72 hours

Prevailing on-torque and Breakaway torque data are from test results conducted on an M-10 x 1.5 class 10.9 phos-oil bolts and M-10 x 1.5 class 10 nuts.

Environmental and Fluid Resistance (Breakaway values)

	Typical Values
Heat age	38 N-m
Engine oil @ 150°C	22 N-m
Brake fluid @ 150°C	16 N-m
ATF @ 150°C	40 N-m
50/50 water/ ethylene glycol @ 120°C	27 N-m
Water @ 100°C	32 N-m
Gasoline @ 25°C	88 N-m
Diesel fuel @ 25°C	85 N-m
15/85 Methanol/ Gasoline @ 25°C	35 N-m
Ethyl Alcohol @ 25°C	56 N-m

Heat age testing was conducted on M-10 x 1.5 phos-oil bolts and nuts. Assembled fasteners were aged at 200°C for 500 hours and allowed to cool to room temperature before breakaway test.

Immersion testing was conducted using M-10 x 1.5 phos-oil bolts and nuts. Assembled fasteners were submerged in each fluid for 1000 hours at the temperature. Assemblies were allowed to cool to room temperature before breakaway test.



General Information

Storage

Fasteners coated with Epoxy-Lock should be stored in a cool and dry location at temperatures between -10 °C to 35 °C. Optimal storage is 25±4°C.

Note

The data 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 recommended that the product be tested in the application for which it is to be used.

ND and Epoxy-Lock are registered trademarks of ND Industries, Inc.