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## TECHNICAL DATA SHEET

### Anaerobic Thread Locking Compound

TURBO-LOCK 11 SERIES is a fast curing, **BLUE**, removable, medium strength, general purpose anaerobic thread-locking compound for bonding and sealing threads. It is highly resistance to heat, vibrations, water, gases, oils, hydrocarbons and many chemicals. Disassembles with hand tools.

**Part Numbers for this TDS: 11-000, 11-001, 11-010, 11-050, 11-250, 11-1000**

#### Application

- Ideal for thread locking plated parts, vibration or moving components.
- Ideal for fasteners between up to ¾" (up to 20 mm) diameters.
- Locks and seals threaded joints-nuts, screws, and studs.
- Meets 90% of all nut and bolt thread locking applications.
- Meets Military specifications: MIL-S-46163

#### ADHESIVE PROPERTIES

Color	Blue
Composition	Methacrylate Ester
Viscosity (Brookfield RVT Spindle 3 @ 20 rpm)	1200 cps at 25 °C
Specific Gravity	1.07
Maximum Screw Size	¾" / 20 mm
Flash Point	> 100 °C
Shelf Life	2 years

#### CURING PROPERTIES

Handling Cure Time	10 minutes
Functional Cure Time	1-3 hours
Full Cure Time	24 hours
Breakaway Torque ISO 10964	
3/8 x 16 steel nuts and bolts N.m	8-17 N.m 70-150 lb.in.
3/8 x 16 cadmium nuts and bolts N.m	1-7 N.m 10-60 lb.in.
3/8 x 16 zinc nuts and bolts N.m	2-7 N.m 20-60 lb.in.
M10 black oxide steel nuts and bolts N.m	8-19 N.m 71-168 lb.in.
Prevail Torque ISO 10964	
3/8 x 16 steel nuts and bolts N.m	3-7 N.m 25-60 lb.in.
3/8 x 16 cadmium nuts and bolts N.m	1-5 N.m 4-40 lb.in.
3/8 x 16 zinc nuts and bolts N.m	1-4 N.m 10-40 lb.in.
Temperature Range	-55 to 150 °C

### PHYSICAL PROPERTIES

Coefficient of Thermal Expansion ASTM D 696, K-1	80x10 <sup>-6</sup>
Coefficient of Thermal Conductivity ASTM C 177, W/(m.K)	0.10
Specific Heat kJ/(kg.K)	0.30

### CHEMICAL RESISTANCE

<u>Chemical</u>	<u>Temperature</u>	<u>% Initial Strength Retained</u>	
		<u>500 Hours</u>	<u>1000 Hours</u>
Acetone	22 ° C	100	85
Ethanol	22 ° C	100	100
Motor Oil	125 ° C	100	100
Gasoline	22 ° C	100	95
Brake Fluid	22 ° C	100	100
Water/Glycol	87 ° C	90	80

#### Application Method

Surfaces should be dry, clean, and free of any contamination. Thread locker should be applied to the bolt in sufficient quantity to fill threads. TURBO-LOCK 11 SERIES performs the best in thin bond gaps. This thread locker is specifically formulated to give controlled friction and torque/tension ratio during assembly.

#### Storage

Anaerobic adhesives are ideally stored in a cool, dry place in unopened containers at a room temperature between 46 ° F to 82 ° F. Please do not return unused material to its original container.

PRECAUTIONS: This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the Warranty: All products purchased from or supplied by Palm Labs Adhesives are subject to terms and conditions set out in the contract. Palm Labs Adhesives warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Palm Labs Adhesives is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Palm Labs Adhesives makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.

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