

**PALM LABS ADHESIVES**  
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## TECHNICAL DATA SHEET

### Anaerobic Thread Locking Compound

**TURBO-LOCK SERIES 16** is a fast curing, **GREEN**, medium strength, wicking grade, anaerobic thread-locking compound for bonding and sealing threads, and pre-assembled parts. It is highly resistance to heat, vibrations, water, gases, oils, hydrocarbons and many chemicals. Disassembles with heat or hand tools.

**Part Numbers for this TDS: 16-001, 16-010, 16-050, 16-250, 16-1000**

#### Application

- Penetrates threads by capillary action. Medium strength thread-locker.
- Ideal for sealing hairline cracks, small nuts and bolts.
- Seals and welds porous metal parts. Localize heating and hand tools are needed for disassembly. Prevents corrosion and leakage.
- Secure setscrews and other assemblies after settings are completed.
- Fasteners on vibrating machines or moving components.
- Meets Military specifications: MIL-S-46163A Type III Grade R and MIL-S-22473 Letter Grade AA

#### ADHESIVE PROPERTIES

Color	Green
Composition	Methacrylate Ester
Viscosity (Brookfield RVT Spindle 3 @ 20 rpm)	12 cps at 25 ° C
Specific Gravity	1.07
Shelf Life	2 years

#### CURING PROPERTIES

Handling Cure Time	20 minutes
Functional Cure Time	1-3 hours
Full Cure Time	24 hours
Breakaway Torque ISO 10964 M10 steel nuts and bolts N.m	10 N.m 85 lb.in.
Prevail Torque ISO 10964 M10 steel nuts and bolts N.m	29 N.m 250 lb.in.
Breakloose Torque ISO 10964, pre-torqued to 5 N.m M10 steel nuts and bolts	30 N.m 270 lb.in.
Max Prevail Torque ISO 10964, pre-torqued to 5 N.m M10 steel nuts and bolts N.m	40 N.m 350 lb.in.
Compressive Shear Strength, ISO 10123 Steel pins and collars	5.4 N/mm <sup>2</sup> 780 psi
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	95	95
Ethanol	22 ° C	95	95
Motor Oil	125 ° C	85	50
Gasoline	22 ° C	90	90
Brake Fluid	22 ° C	90	85
Water/Glycol	87 ° C	90	90

#### 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. 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 consider 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 nor infringe any patent.

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