



## PARSON ADHESIVES, INC.

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### SONLOK™ 3277

#### *Anaerobic Thread Locking Compound*

SONLOK 3277 is a high strength anaerobic thread-locking compound for bonding and sealing threads, and retaining of cylindrical parts. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration.

SONLOK 3277 is highly resistant to heat, vibrations, water, gases, oils, hydrocarbons and many chemicals.

#### **Applications:**

- Ideal for locking and sealing of larger bolts and studs. (M25 and larger)
- Transmission and engine block studs, valve sets, etc.
- High strength, permanent and eliminates need for double nutting and welding. Prevents corrosion and leakage.
- Meets Military Specification: MIL-S-43163A Type I Grade L

#### **Adhesive Properties:**

Composition:	Methacrylate Ester
Color:	Red
Viscosity: Brookfield RVT Spindle 3 @ 20 rpm	7,000 cps at 25 °C
Specific Gravity:	1.11
Maximum Diameter of Thread/Gap Filling:	M 25/ 1 " / 0.25 mm
Flash Point:	> 100 °C
Solvent Content:	None
Shelf Life:	2 Years

#### **Curing Properties:**

Handling Cure Time:	30 minutes
Functional Cure Time:	2 - 4 hours
Full Cure Time:	24 hours

Breakaway Torque, ISO 10964: M10 steel nuts and bolts N·m	32 N·m 280 lb.in.
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Prevail Torque, ISO 10964: M10 steel nuts and bolts	32 N·m 280 lb.in.
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Break loose Torque, ISO 10964, Pre-torqued to 5 N-m:  
M10 steel nuts and bolts 38 N.m.  
340 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 9 N/mm<sup>2</sup>  
1,300 psi

Temperature Range -55 to 150 °C

### **Physical Properties:**

Coefficient of Thermal Expansion, 80×10<sup>-6</sup>  
ASTM D 696, K-1  
Coefficient of Thermal Conductivity, 0.10  
ASTM C 177, W/(m·K)  
Specific Heat, kJ/(kg·K) 0.30

### **Chemical Resistance:**

Chemical	Temp.	% Initial Strength Retained	
		500 hours	1000 hours
Acetone	22 °C	95	95
Ethanol	22 °C	95	95
Motor Oil	125 °C	100	100
Gasoline	22 °C	100	100
Brake Fluid	22 °C	90	90
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. SONLOK 3277 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 shall be ideally stored in a cool, dry place in unopened containers at a room temperature between 46 °F to 82 °F. Please do not return any 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 material.

**Warranty:** All products purchased from or supplied by Parson are subject to terms and conditions set out in the contract. Parson warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Parson 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. Parson 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.