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Datasheet

# RS Pro 250ML THREADLOCKER

RS Stock No: 908-2739



## PRODUCT DESCRIPTION

301297 is a medium-viscosity, high strength threadlocking adhesive for all types of metal, threaded fasteners. Cured performance shows consistent high strength with good temperature and solvent resistance against most industrial solvents. Can be used on any metal surface including oily steel, aluminum, stainless steel and zinc plated parts. The product is an equivalent to Loctite Grade 271, also called Stud-lock grade. This product cures rapidly on normal plated or oiled metal surfaces and fixtures within 20 minutes. Cures can be accelerated with either elevated temperatures or an anaerobic activator. 301297 provides a consistent torque-tension relationship with phosphate and oil finishes over the entire recommended torque range for grade 5 fasteners.



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Base Resin- Methacrylate

Percent Solids- 100%

**Benefits of Adhesive:**

- Good Adhesion and Sealing Capability
- 100% Solids Formulation For Cost-Effectiveness
- High Strength for Permanent Locking Applications
- Excellent Chemical Resistance and Improved Hot Strength
- Medium viscosity for 3/8-16 UNC fasteners

**PHYSICAL PROPERTIES**

**TYPICAL UNCURED PROPERTIES (LIQUID)**

Viscosity-  
Specific Gravity  
Color-  
Toxicity-

500cps at 2.5 rpm, #3 spindle, Brookfield RV  
1.05 (20°C)  
Red  
Low, see MSDS

**TYPICAL CURING PROPERTIES**

Fixture Time  
Full Cure Time  
Cure Activity-

15-20 minutes @ 23°C on zinc plate  
24 hrs. @ 23°C  
Fastest on plain steel fasteners,  
slower on plated.

Cure Activator-

Can be used inconjunction with an  
anaerobic activator on plastic or plated  
surfaces.

**TYPICAL CURED PROPERTIES (SOLID)**

Shore D Hardness-  
Torque Strength:  
Breakaway/Steel 3/8-16 UNC

>80

Range 140-300 in-lbs. depending on  
surface, typical value is 200 in-lbs. on zinc  
plated.

Prevail torque 3/8-16 UNC

Range 150-350 in-lbs. depending on  
surface typical value is 250 in lbs. on zinc  
plated.

Thermal Service Range-

-50°C to 150°C



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**Solvent Resistance-**

Water, oil, glycol, gasoline @ 60°C  
transmission fluid immersion tests.

100% retention of strength

**Coefficient of Friction**

0.18 black oxide, 0.20 zinc

**Coefficient of thermal expansion**

$80 \times 10^{-6}/K$

**Specific heat kJ/kgK**

0.3

**Typical Process Methods:**

Apply adhesive to one surface. Assemble with mating threaded component. Tighten to desired torque within 5 minutes of assembly.

**Curing Information:**

Fixture Time:

15-20 minutes on zinc,

8-10 minutes on steel and black oxide.

Full Strength:

24 hours.

**Application Note:**

Material is not sensitive to moisture, but is sensitive to UV light and heat. Will not cure if exposed to oxygen.

**Shelf Life of Packaged Product:**

12 months at 23°C when stored in sealed original containers.