

Product Description

Vibra-Tite 461 PTFE-Free High Temperature Thread Sealant is an easy-to-use anaerobic pipe sealant which sets fast to give an instant low-pressure seal of 100 psi and a high-pressure seal of 9,000 psi when fully cured. This high strength product provides 100% sealing capability and does not shrink after curing, unlike more traditional solvent based pipe dopes.

Typical Applications

Vibra-Tite 461 PTFE-Free High Temperature Thread Sealant with PTFE lubricates parts during assembly. The cure system allows for realignment of parts up to 24 hours from application. This product can be used on most hydraulic, pneumatic, oil, water, and gas connections.

Properties of Uncured Material

Chemical Type	Methacrylic Ester
Cure Type	Anaerobic
Secondary Cure	Activator
Percent Solids	100
Color	White
UV Fluorescent	Yes
Viscosity @25°C	250,000-500,000 cPs
Specific Gravity	1.08
Application	Sealing

1. Brookfield RVT Spindle 7, 2 rpm

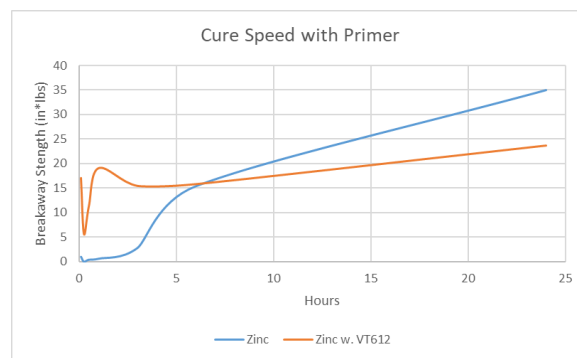
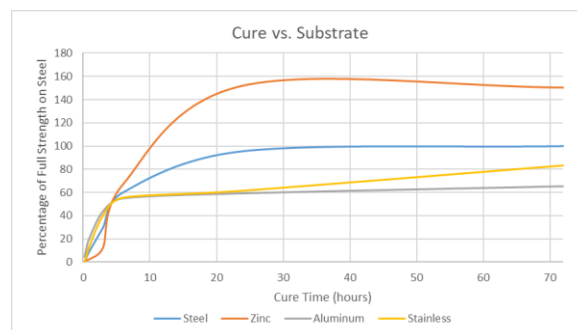
Performance of Cured Material

Typical Values (M10-1.5 Steel test bolt)

Strength	Low
Operating Range	-53°C to 204°C (-65°F-400°F)
Fixture Time (w/activator)	<10 minutes
Fixture Time (w/out activator)	4 hours
Breakaway Torque	0.5-4 Nm (5-35 in*lbs)
Prevailing Off Torque	<2 Nm (<15 in*lbs)
Breakloose Torque (Preloaded to 5 Nm)	5-7 Nm (40-60 in*lbs)

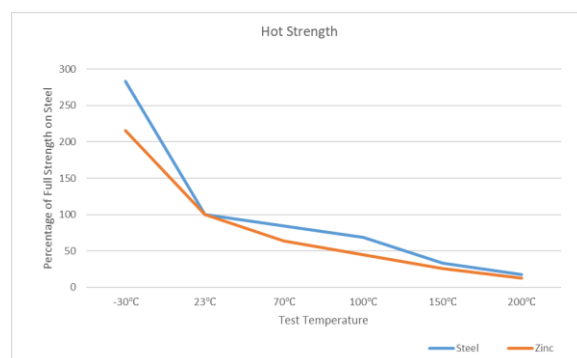
Cure Speed

The cure speed is dependent on temperature and substrate. The graph below shows the Breakaway Strength on various common bolt and nut finishes. Testing was conducted on M10-1.5 bolts with Style 2 test nuts.



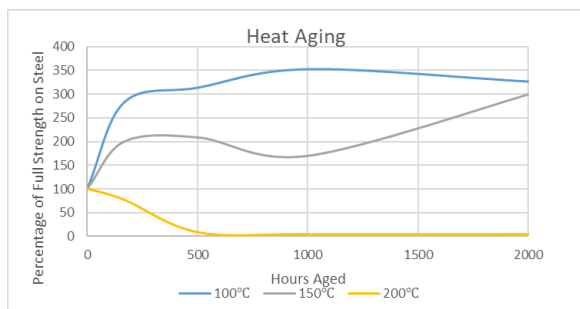
Hot Strength

Parts were cured for 24 hours then held at temperature for two hours. Breakaway torque values were recorded for parts at temperature. Testing was conducted on M-10x1.5 bolts with a style 2 test nut



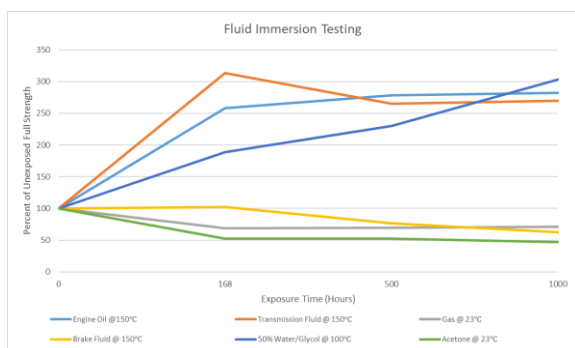
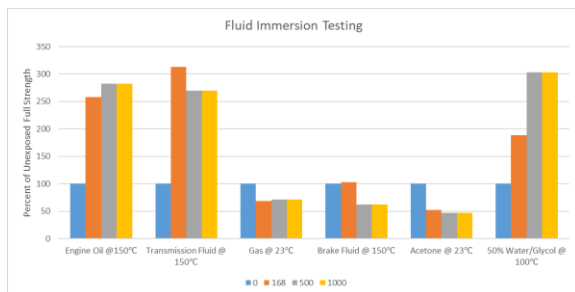
Heat Aging

Parts were allowed to cure for 24 hours then were aged at the reported temperatures. Breakaway torque values were recorded at room temperature. Testing was performed on M10-1.5 plain steel nuts and style 2 bolts.



Fluids Testing

Parts were allowed to cure for 24 hours then were submerged in the listed fluid(s) at the reported temperatures. Breakaway values for the M-10x1.5 plain test bolts were recorded at room temperature.



Instructions for Use

For best results, ensure parts are clean, dry and free from oil and grease. Anaerobic adhesives cure in the presence of metal and the absence of oxygen. Residual adhesive outside of the bond area will remain liquid and is not indicative of product failure. For optimal performance, allow the material to cure for at least 24 hours prior to use when possible.

Compatible Primers

Primers such as Vibra-Tite Excel 611 (Primer N) or Excel 612 (Primer T) can be used to speed the fixture time of the adhesive. Fixture times can improve by as much as 50%. The use of primers can result in lower strength and performance should be tested after full cure.

General Information

Storage

Product should be stored in a cool and dry location at temperatures between 8°C to 21°C. Shelf life is 2 years from date of manufacture when stored at 72±8°F (22±4°C). Storing above this temperature will result in a lower shelf life.

Shelf life of this product is 6 months when storing in quantities ≥ 2 liters. Refrigerate the material or download the material into smaller containers to extend the shelf life.

Note

Vibra-Tite 461 is recommended for threaded components under 1" in diameter. Components can be disassembled using conventional hand tools. It is color coded white and once cured, seals and vibration proofs the assembly giving controlled breakaway and prevailing torques.

Health & Safety in use

IRRITANT: Contains Methacrylate Esters which may irritate eyes, respiratory organs and skin. In case of contact with the skin, wash immediately with plenty of water.