

## Product Description

Vibra-TITE 541 High Strength Retaining Compound is a single part, medium viscosity, high strength anaerobic resin used for bonding rigid assemblies of all types. This material can be used effectively to increase the strength of most mechanical assemblies.

## Typical Applications

Vibra-TITE 541 can be used in a broad variety of applications such as:

- Locks keys and splines
- Eliminates backlash in worn assemblies
- Locks bearings in place, preventing spin out
- Bonds rotor to shaft in low horsepower motors
- Locks bushings and sleeves in housings and on shafts
- Restores the fit to worn assemblies or out-of-tolerance parts

This high viscosity product is not recommended for extremely close or interference fits. For large gaps, use of Vibra-TITE primer to ensure a fast, full cure is advisable.

## Properties of Uncured Material

<b>Chemical Type</b>	Methacrylate Blend
<b>Cure Type</b>	Anaerobic
<b>Secondary Cure</b>	Activator
<b>Percent Solids</b>	100
<b>Color</b>	Green
<b>UV Fluorescent</b>	Yes
<b>Viscosity @25°C</b>	1200-1600 <sup>1</sup> cPs
<b>Specific Gravity</b>	1.1
<b>Application</b>	Retaining

1. Brookfield RVT Spindle 3, 20rpm

## Performance of Cured Material

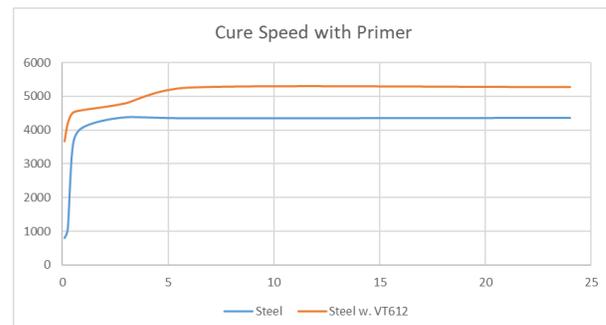
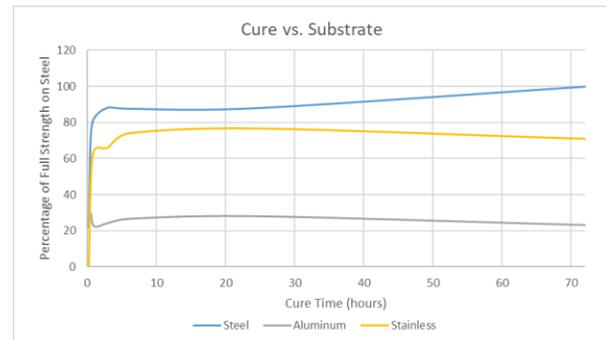
<b>Strength</b>	High
<b>Operating Range</b>	-51°C to 177°C (-60°F-350°F)
<b>Fixture Time</b>	5-10 minutes @ 72°F
<b>Full Cure Time</b>	24 hrs @ 72°F

<b>Shear Strength</b> Steel, 24 hr RT	3500 psi
<b>Shear Strength</b> Al, 24 hr RT	2700 psi

Static shear strength was measured on cylindrical parts with a 0.002” diametrical clearance.

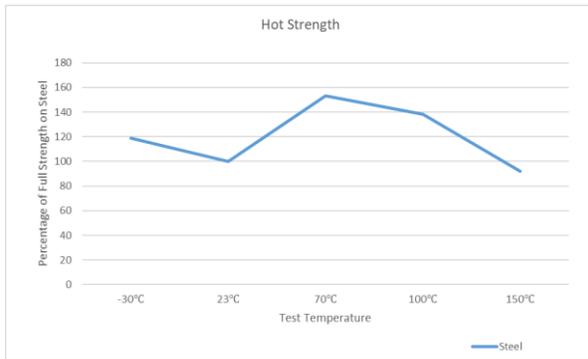
## Cure Speed

The cure speed is dependent on temperature and substrate. The graph below shows compressive shear strength on various common finishes at 25°C, using ASTM 4562.



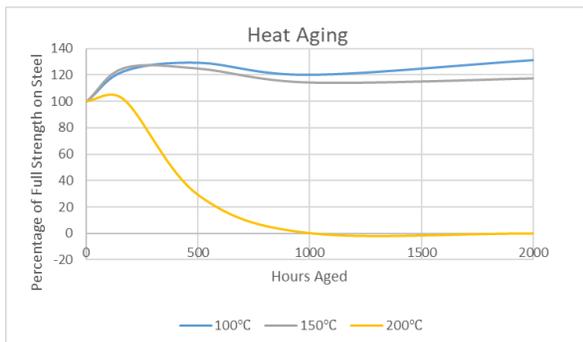
## Hot Strength

Parts were cured for 24 hours then held at temperature for two hours. Compressive shear strength values were recorded for parts at temperature, using ASTM 4562 on steel substrates.



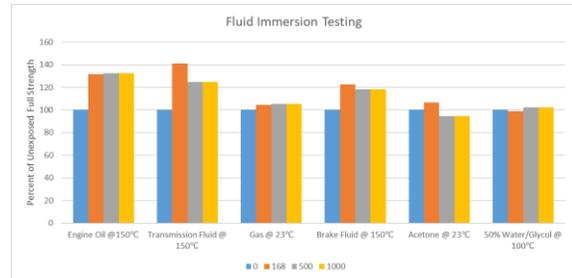
## Heat Aging

Parts were allowed to cure for 24 hours then were aged at the reported temperatures. Compressive shear strength values were recorded at room temperature using ASTM 4562 on steel substrates.



## Fluids Testing

Parts were allowed to cure for 24 hours then were submerged in the listed fluid(s) at the reported temperatures. Compressive shear strength values were recorded at room temperature, using ASTM 4562 on steel substrates.



## 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

The high strength of this material may require heat to disassemble.

## Health & Safety in use

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