

# LOCTITE<sup>®</sup> NS 5540

January 2018

## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> NS 5540 provides the following product characteristics:

<b>Technology</b>	Sealant
<b>Chemical Type</b>	Thermally Reactive Resin
<b>Appearance</b>	Brown Liquid
<b>Cure</b>	Heat Cure
<b>Application</b>	Sealant for Thread and Flange
<b>Specific Benefit</b>	<ul style="list-style-type: none"> <li>• One Component</li> <li>• Low Viscosity</li> <li>• Chemical Resistant</li> </ul>

LOCTITE<sup>®</sup> NS 5540 is a thermal reactive liquid sealing compound that is used in high temperature and high pressure applications. In the presence of heat, LOCTITE<sup>®</sup> NS 5540 will cure to form a seal. LOCTITE<sup>®</sup> NS 5540 will not permanently join the flanges together, it will not interfere with future repairs of metal-to-metal joints. This product is typically used at temperatures up to 704°C (1,300°F) and seals up to 200 bar (2,900 psi) with correctly designed flanges.

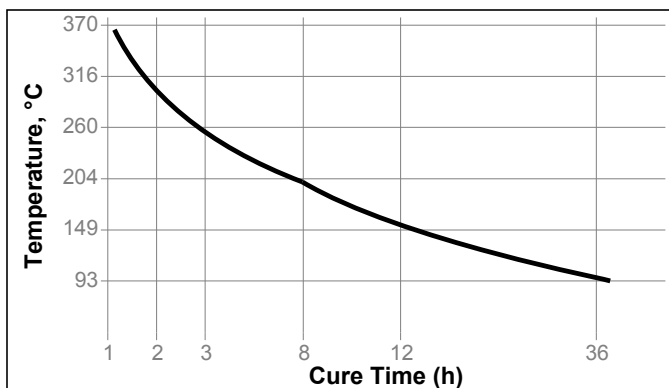
## TYPICAL PROPERTIES OF UNCURED MATERIAL

Density @ 25 °C, g/ml	0.968
Viscosity, Brookfield - DV-E, mPa·s (cP)	48,450
Lubricity, K-Factor	0.14
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Cure Time

Cure time vs temperature graph



## TYPICAL PERFORMANCE OF CURED MATERIAL

Cured for 24 hours @ 23 °C

Breakloose Torque, ISO 10964, Pre-torqued to 290 N·m:	
1.25 inch B-7 Bolt	N·m 217 (lb.ft.) (160)

## Pressure Resistance

LOCTITE<sup>®</sup> NS 5540 was successfully tested for pressure resistance and sealability to 7 bars at 700 °C for 1 hour, samples were pre-cured at 120 °C for 2 hours, 1/2 inch NPT fittings.

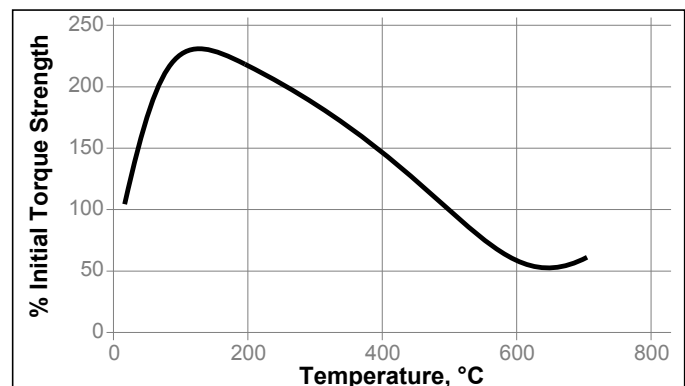
## TYPICAL ENVIRONMENTAL RESISTANCE

The following table shows chemical resistance relative to MIL S-15204D % SOLIDS

Environment	°C	% of initial strength
		24 h
Sodium hydroxide, 10%	80	Suitable
Water/Steam, 100%	107	Suitable
Isopropanol, 100%	80	Suitable
ISOPAR M, 100%	80	Suitable
Transmission fluid, 100%	107	Suitable

## Heat Exposure (24hr)

Tested at Ambient Temperature ISO 10964



**GENERAL INFORMATION**

**This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.**

**For safe handling information on this product, consult the Safety Data Sheet (SDS).**

**Directions for use:****Application Method:**

1. For best results, clean all surface (external and internal) with a LOCTITE® cleaning solvent and allow to dry.
2. Apply an even coating across the entire surface to be sealed with a brush or putty knife (apply to male end of threads).
3. Product may be used with existing gaskets as a dressing. In this case apply a thin coat to both sides of the gasket as well as the matting surfaces.
4. Normal bolting and torque procedures should be followed when assembling the joint, follow manufacturer's specifications where required.
5. Product may be used with existing gaskets as a dressing. In this case apply a thin coat to both sides of the gasket as well as the mating surfaces.

**Curing**

1. High pressure applications or pressure testing at ambient require running heat without pressure or pre-curing with an external heat source

**For Cleanup**

1. Immediately after use clean tools with suitable cleaner, e.g. LOCTITE® SF 7070™ or a solvent such as acetone or isopropyl alcohol. Once cured, the material can only be removed mechanically.

**Storage**

The product is classified as combustible and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidizing agents or combustible materials. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.

**Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

**Not for product specifications**

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Note:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 0.1