

LOCTITE[®] NS 5550

January 2019

PRODUCT DESCRIPTION

LOCTITE[®] NS 5550 provides the following product characteristics:

Technology	Sealant
Chemical Type	Thermally Reactive Resin
Appearance	Brown Fibrous Paste
Cure	Heat Cure
Application	Sealant for Flanges
Specific Benefit	<ul style="list-style-type: none"> • One Component • Non-sag • Chemical Resistant

LOCTITE[®] NS 5550 is a thermal reactive fibrous paste sealing compound that is used in high temperature and high pressure applications. In the presence of heat, LOCTITE[®] NS 5550 will cure to form a seal. LOCTITE[®] NS 5550 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 815°C (1,500°F) and seals up to 345 bar (5,000 psi) with correctly designed flanges.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density @ 25 °C, g/ml	1,330
Viscosity, Brookfield - DV-E, mPa·s (cP)	1,910,000
Lubricity, K-Factor	
1.25 inch B-7 bolts	0.13
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Set Time, ASTM D2471,	
@ 150 °C	2 hours
@ 200 °C	1hour
@ 260°C	<1hour

TYPICAL PERFORMANCE OF CURED MATERIAL

Cured for >4 hours @ 93 °C

Torque Strength

Breakloose Torque, ISO 10964, Pre-torqued to 270 N·m:					
1.25 inch B-7 Bolt	<table> <tr> <td>N·m</td> <td>310</td> </tr> <tr> <td>(lb.ft.)</td> <td>(230)</td> </tr> </table>	N·m	310	(lb.ft.)	(230)
N·m	310				
(lb.ft.)	(230)				

TYPICAL ENVIRONMENTAL RESISTANCE

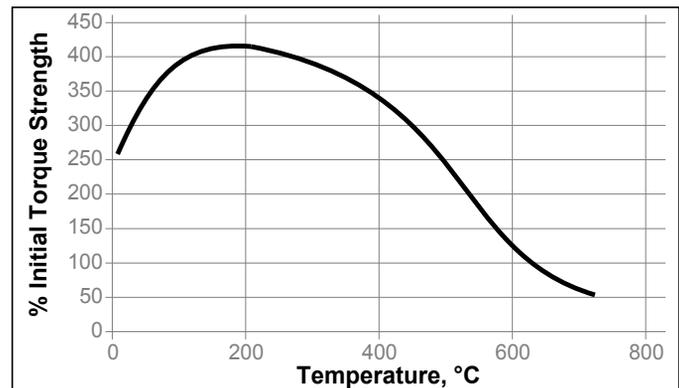
The following table shows chemical resistance relative to MIL S-15204D % SOLIDS

Chemical Resistance, cured >4 hours @ 93°C

Environment	°C	% of initial strength
		24 h
Water/Steam	107	Suitable
Isopropanol	80	Suitable
ISOPAR M	80	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:

Shake container thoroughly before use, some separation may occur during storage

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 putty knife .
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.

Curing

1. Product will cure in service with heat and requires a minimum of 150°C to reach full cure. Time varies based on temperature as noted in profile
2. 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.

CAUTION: During mechanical removal avoid breathing any resulting dust

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.

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. Any liability in respect of the information in the Technical Data Sheet or any other

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Reference 0.1