

LOCTITE® 55™

May 2024

PRODUCT DESCRIPTION

LOCTITE® 55™ provides the following product characteristics:

Technology	White colored, coated cord
Chemical Type	Polyamide thread with inert proprietary paste
Appearance	White colored, coated cord
Cure	Not applicable
Application	Thread sealing

LOCTITE® 55™ is a general purpose, threaded pipe and fitting sealant which is wound from the dispensing package onto the threads of the pipe. It is supplied in containers, which serve for both storage and dispensing purposes. Recommended for sealing metal and plastic tapered pipe threads and fittings 4" NPT (National Pipe Thread) for use in industrial applications in aqueous and non-aqueous fluids. Particularly suitable in threaded assembly applications that require immediate use and may undergo small readjustments before use. This product is typically used in applications up to 149°C.

NSF International

Certified to ANSI/NSF Standard 61 for use in commercial and residential potable water systems not exceeding 82° C. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

EN 751-2

Sealing materials for metallic threaded joints in contact with 1st, 2nd, and 3rd family gases and hot water; Part 2: Non-hardening jointing compounds. LOCTITE® 55™ has been tested and conforms to EN 751-2 for a class ARp compound and carries the DVGW approval.

WRC and BGA KTW approval

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water. LOCTITE® 55™ has been tested and has potable water approval to BS 6920 and also meets the specifications of the **WRC** and **BGA KTW** for both cold and hot potable water.

Approved by the Australian Gas Association Certificate number 3207 Class III rated working pressure 2,000 kPa, working temperature -10 to 150°C. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

Hydrogen Certified Adhesive

LOCTITE® 55™ has been tested and conforms to GASTEC QA Approval requirement 214 (AR-214).

Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

TYPICAL PROPERTIES

Specific Gravity @ 25°C	1.25
Coating Weight, g/m	0.54 to 0.74
Spool Weight, g:	
12 meter spool	7.0 to 10.4
50 meter spool	27.3 to 39.6
100 meter spool	54.0 to 80.7
160 meter spool	86.4 to 125.1
Spool Length, m:	
12 meter spool	12.5 to 14.0
50 meter spool	50.5 to 53.5
100 meter spool	101.0 to 109.0
160 meter spool	161.0 to 169.0

Lubricity, ASTM D5648, K value:

3/8 x 16 fastener, using LOCTITE® 55™	0.15
3/8 x 16 fastener, using (degreased)	0.2
3/8 x 16 phosphate and oil nuts and bolts	0.16

(In critical applications, it is necessary to determine the K values independently. Henkel corporation makes no warranty of specific performance on any individual fastener.)

TYPICAL PERFORMANCE OF CURED MATERIAL

Approval tests according to EN 751-2 for class ARp compound:

Soundness Test, section 7.2.1.2	No leaks
Soundness Test after 45° joint adjustment, section 7.2.1.3	No leaks

Resistance to gas condensates, section 7.2.1.4	No leaks
Hot water resistance test, section 7.2.1.5	No leaks
Temperature cycling test, section 7.2.1.6	No leaks
Vibration test, section 7.2.1.7	No leaks
Compatibility with foam forming leak tester, section 7.2.2	Pass

Test of hardening and dismantling, section 7.2.3	Pass
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Pressure Resistance

LOCTITE® 55™ was successfully tested for pressure resistance and sealability to 69 MPa. 3/8 NPT steel pipe tees and plugs were assembled and pre-torqued to 27 N-m prior to testing at 69 MPa hydraulic pressure @ 23°C according to ASTM D 1599.

Steam Compatibility

LOCTITE® 55™ was successfully tested for steam compatibility to 0.17 MPa. 1.5" NPT were assembled and tested at 0.17 MPa pressure @ 130°C for 1,000 hours.

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

1. Clean parts with a wire brush prior to application of product.
2. Hold the end of the Pipe Sealing Cord against the male nipple with one finger approximately two threads away from the end.
3. Wind the fiber onto the pipe threads in the same direction of the thread helix starting from the end of the pipe. For optimum performance, the grooves of the threads should be filled without completely masking the pitches of the thread. **NOTE:** It is not necessary to follow the valley of the thread.
4. **CAUTION:** Do not over-apply the Pipe Sealing Cord. Excessive material tends to be pushed off as fittings are assembled, and it also becomes mechanically more difficult to complete the engagement.
5. Cut the required length off with the integrated cutting tool and smooth the loose end onto the pitches of the pipe thread.
6. LOCTITE® 55™ can be adjusted up to 45° after tightening.

Usage/Application Information

The following is a guideline for how much LOCTITE® 55™ to use per pipe diameter.

Pipe Diameter	Number of turns (wraps)	
	Metal	Plastic
½ "	6 to 8	12 to 15
¾ "	7 to 9	15 to 25
1"	8 to 12	20 to 30
1½ "	10 to 15	25 to 35
2"	15 to 25	-----
2½ "	20 to 30	-----
3"	25 to 35	-----
3½ "	30 to 40	-----
4"	35 to 45	-----

LOCTITE® 55™ provides sealing against cold water and compressed air on plastic pipe threads when applied properly in a sufficient amount.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

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 Corporation 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 Henkel representative.

Product Specification

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate

Please contact a Henkel representative for related approval or certificate of this product.

Data Ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions

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

Disclaimer

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 written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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Reference 0.1

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