Technical Data Sheet

LOCTITE® 55 Pipe Cord™

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PRODUCT DESCRIPTION

LOCTITE® 55 Pipe Cord™ provides the following product characteristics:

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

LOCTITE® 55 Pipe Cord™ 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 up to 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 Pipe Cord™ 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 Pipe Cord™ 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 6007 Class III rated working pressure 2000 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.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	1.25
Flash Point - See SDS	
Coating Weight, g/m	0.54 to 0.74[LMS]
Spool Weight, g:	
12 meter spool	7.0 to 10.4[LMS]
50 meter spool	27.3 to 39.6[LMS]
100 meter spool	54.0 to 80.7[LMS]
160 meter spool	86.4 to 125.1
Spool Length, m:	
12 meter spool	12.5 to 14.0[LMS]
50 meter spool	50.5 to 53.5[LMS]
100 meter spool	101.0 to 109.0[LMS]
160 meter spool	161.0 to 169.0
Lubricity, ASTM D5648, K value:	
3/8 x 16 fastener, using LOCTITE® 55 Pipe Cord™	0.15
3/8 x 16 fastener (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 APPLIED 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

Pressure Resistance

LOCTITE® 55 Pipe Cord™ 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.

TYPICAL ENVIRONMENTAL RESISTANCE

LOCTITE® 55 Pipe Cord™ has resistance to most common industrial fluids and gasses.

Steam Compatibility

LOCTITE® 55 Pipe Cord™ was successfully tested for steam compatiblity 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 Pipe Cord™ can be adjusted up to 45° after tightening.

Usage/Application Information

The following is a guideline for how much LOCTITE® 55 Pipe Cord™ 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 Pipe Cord™ provides sealing against cold water and compresed air on plastic pipe threads when applied properly in a sufficient amount.

Loctite Material Specification[LMS]

LMS dated January 26, 2005. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

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 Technical Service Center or Customer Service Representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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Reference 1.9