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# Product Description Sheet Loctite<sup>®</sup> 55 Pipe Sealing Cord

Maintenance, Repair & Operations, May 2001

## PRODUCT DESCRIPTION

LOCTITE® 55 Pipe Sealing Cord is a general purpose threaded pipe and fitting sealant. It is a non curing coated multifilament thread, which is wound from the dispensing package onto the threads of the pipe. The product is supplied in containers, which serve for both storage and dispensing purposes. This product has CSA (formerly AGA), NSF-61, and UL listing and allows for post assembly adjustment.

## **TYPICAL APPLICATIONS**

Recommended for sealing metal and plastic tapered pipe threads and fittings up to 4" NPT (National Pipe Thread) for industrial applications in aqueous and non-aqueous fluids. Loctite® 55 Pipe Sealing Cord has a temperature resistance up to 300°C and is particularly suitable in applications where threaded assemblies that require immediate use and may undergo small readjustment before use.

#### **DIRECTIONS FOR USE**

- If necessary, clean parts with a wire brush prior to applying Loctite® 55 Pipe Sealing Cord.
- Hold the end of the Pipe Sealing Cord against the male nipple with one finger approximately two threads away from the end.
- 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 threads. It is not necessary to follow the valley of the thread.
- 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.
- Cut the required length off with the integrated cutting tool and smooth the loose end onto the pitches of the pipe thread

The following is a guideline for how much Loctite® 55 Pipe Sealing Cord to use per pipe diameter.

Cold to use per pipe diameter.			
Pipe Diameter	Number of turns (wraps)		
	Metal	Plastic	
1/2 "	6-8	12-15	
3/4 "	7-9	15-25	
1"	8-12	20-30	
1 ½"	10-15	25-35	
2"	15-25		
2 ½"	20-30		
3"	25-35		
3 ½ "	30-40		
4"	35-45		

Loctite® 55 Pipe Sealing Cord provides sealing against cold water and compressed air on plastic pipe threads when applied properly in a sufficient amount.

**Usage/Application Information** 

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Pipe	Number of Wraps	Number of	
Diameter	with Loctite® 55	applications per	
(NPT)	Sealing Cord	container (#35082)	
	6	381	
1/2 "	7	333	
,,,	8	292	
	7	303	
3/4 "	8	263	
74	9	232	
	8	184	
	9	168	
1"	10	151	
'	11	137	
	12	125	

#### **PROPERTIES OF MATERIAL**

Chemical Type Polyamide thread with inert proprietary paste

Appearance White threaded cord

Flash Point(TCC), °C >93 Specific Gravity @ 25°C 1.25

#### PRODUCT PERFORMANCE

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

<u> </u>			
Section	Test Description	Result	
7.2.1.2	Soundness test	No Leaks	
7.2.1.3	Soundness test after 45° joint adjustment	No Leaks	
7.2.1.4	Resistance to gas condensates	No Leaks	
7.2.1.5	Hot water resistance test	No Leaks	
7.2.1.6	Temperature cycling test	No Leaks	
7.2.1.7	Vibration test	No Leaks	
7.2.2	Compatibility with foam forming leak tester	Passed	
7.2.3	Test of hardening and dismantling	Passed	

## PRESSURE RESISTANCE (ASTM D 1599)

Loctite® 55 Pipe Sealing Cord was successfully tested for pressure resistance and sealability to 10,000 psig. 3/8" stainless steel pipe tees and plugs were assembled and torqued to 240 inch lb. prior to testing to 10,000 psig hydraulic pressure at 23°C.

Pipe Size	Pressure (psig)	Result
3/8 Stainless NPT	10,000	No Leaks

## SOLVENT/CHEMICAL RESISTANCE

Loctite® 55 Pipe Sealing Cord has resistance to most common industrial fluids and gasses and is UL listed for use in devises handling gasoline, petroleum oils, natural gas propane and butane. It is also certified by NSF International for use in commercial and residential potable water systems.

# **STEAM COMPATIBILITY**

Pipe Size	Temp °C	Pressure (psig)	Duration (hours)	Results
1.5" NPT	130	25	1,000	Pass

## **LUBRICITY - ASTM D5648**

K Factor (torque/tension)	K Value
Loctite 55 Pipe Sealing Cord on 3/8"x16 fastener	0.15
Degreased 3/8"x16 fastener	0.20
As received phos. & oil coated 3/8"x16 fastener	0.16

#### **ADJUSTABILITY**

Loctite 55 Pipe Sealing Cord can be adjusted up to  $90^{\circ}$  after tightening.

## **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 Material Safety Data Sheet, (MSDS).

## **APPROVALS**

## **UL** Listina

UL- Listed by Underwriters Laboratory Inc. for use on threaded joints of metal pipe not exceeding 1-1/2 in. pipe size in devices handling gasoline, petroleum oils and not exceeding 1" pipe size in devices handling natural gas (pressures not over 300 PSIG), propane and butane.

#### **NSF INTERNATIONAL**

NSF- Certified to **ANSI/NSF Standard 61-Drinking Water Components** for use in commercial and residential potable water systems not exceeding 180 degrees F (82 degrees C) operation.

## **CSA INTERNATIONAL**

## (formerly American Gas Association, AGA)

CSA International Certified to Requirements No. 4-90 and CAN/ULC-S642-M87 For Natural and L.P. gases up to 300 PSIG, temperature range of (-65°F to 300°F).

## **BRITISH STANDARD BS EN 751-2:1997**

Sealing materials for metallic threaded joints in contact with 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> family gases and hot water; Part 2: Non-hardening jointing compounds.

Loctite® 55 Pipe Sealing Cord has been tested and conforms to EN-751-2 for a class Arp compound which forms the basis for DVGW approval (Certificate No. AZ: 98/250/5142/1 and has been approved for use in potable water pipe fittings and connections by the KTW for cold and hot water. It also has potable water approval to BS 6920. Copies of the approval certificates can be obtained through your local Technical Service Center.

# Ordering Information

Part Number	Container Size
35082	5,700 inches per dispenser
	(145 meters)

## Storage

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 21°C (46°F to 70°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact your local Technical Service Center.

## PDS Loctite 55 Pipe Sealing Cord, May 2001

## **Data Ranges**

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

#### Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Loctite Corporation specifically disclaims all warranties expressed or implied including warranties merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.