

Introduction

SealXpert™ Thread Sealing String 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 from -35°C to 180°C.

Application

The product is suitable for use in firefighting pipes (<150°C), cold & hot water pipes, drinking water pipes and natural gas pipes.

The following is a guideline for how much SealXpert™ Thread Sealing String to use per pipe diameter.

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

SealXpert™ Thread Sealing String provides sealing against cold water and compressed air on plastic pipe threads when applied properly in a sufficient amount.

Typical Properties

Specific Gravity @ 25 °C	1.25
Flash Point	93°C
Coating Weight, g/m	0.54 to 0.74
Spool Weight, g:	
20 meter	10.8 to 15.9
80 meter	43.2 to 64.5
Spool Length, m	20 meter / 80 meter
Lubricity, ASTM D5648, K value:	
3/8 x 16 fastener	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. SealXpert Product makes no warranty of specific performance on any individual fastener)

Typical Performance of Applied Material

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

SealXpert™ Thread Sealing String 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

SealXpert™ Thread Sealing String has resistance to most common industrial fluids and gases.

Steam Compatibility

SealXpert™ Thread Sealing String 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.

Directions for Use

- Clean parts with a wire brush prior to application of product.
- 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 thread.
NOTE: It is not necessary to follow the valley of the thread.
- 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.
- Cut the required length off with the integrated cutting tool and smooth the loose end onto the pitches of the pipe thread.
- SealXpert™ Thread Sealing String can be adjusted up to 90° after tightening.

Storage

Store product in the unopened container in a dry location. Storage information may 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. SealXpert Products cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated.

Note:

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).

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable damage resulting from handling or from contact with the above product. We therefore provide no warranty, either explicit or otherwise regarding the suitability of our products for any applications. It is the responsibility of the user to ensure that any proprietary rights and existing laws and legislation are observed