

# NORPRENE® Pressure Tubing



Norprene® Pressure Tubing is ideally suited for applications that require an approved food contact surface.

## Versatile Norprene® Tubing Provides Long Life for Everyday Use

Norprene® Pressure Tubing consistently outperforms general purpose rubber tubing in a wide variety of applications. It has excellent resistance to ozone and UV light, with little to no sign of deterioration in laboratory testing to the equivalent of 10 years outdoor exposure. Norprene® Pressure Tubing is extremely abrasion resistant and bends easily to simplify custom component assembly.

## Simplifies Cleaning and Sterilization

Norprene® Pressure Tubing is ideal for use in clean-in-place and steam-in-place cleaning and sterilization systems. It is compatible with virtually all commercial cleaners and sanitizers and can be repeatedly autoclaved for up to five cycle times without affecting its overall service life. Norprene® Pressure Tubing fully complies with FDA 177.2600 criteria, 3-A Sanitary Standards and NSF Standard 51, which are applicable in many food contact applications.

## Excellent Chemical Resistance

Norprene® Pressure Tubing provides superior resistance to many corrosive fluids when compared to general purpose rubber tubings. Norprene® Pressure Tubing has excellent acid and alkali resistance and is compatible with numerous oxidizing agents such as hydrogen peroxide, sodium hypochlorite and ozone. It also shows good resistance to the animal and vegetable oils frequently found in food contact applications. Refer to the comprehensive Tygon® Tubing catalog for a complete listing of common chemicals and their relative affect on Norprene® tubing.

## FORMULATION A-60-F I.B.

*Provides long service life even when exposed to heat, abrasion and pressure*

### Features/Benefits

- Handles at least 4 times the pressure of non-reinforced tubing
- Temperature resistant from -75°F to 275°F
- Ozone and UV light resistant
- Repeatedly autoclavable
- Compatible with a wide range of fluids
- Meets FDA, 3-A and NSF criteria

### Typical Applications

- Cosmetic production
- Food and dairy processing
- Hot beverage dispensing
- Water purification lines
- Sanitizer delivery
- Soap dispensing
- Pesticide/fertilizer delivery
- Ink and toner feed lines
- Chemical transfer

## Norprene® A-60-F I B. Manufactured Sizes and Pressures

Saint-Gobain Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Length (feet)	Minimum Bend Radius (inches)	Max. Suggested Working Pressure at		Vacuum Rating, In. of Mercury	
						73°F (psi)*	180°F (psi)*	73°F (psi)*	180°F (psi)*
APW00019	1/4	1/2	1/8	50	3/4	125	70	29.9	29.9
APW00029	3/8	5/8	1/8	50	1-1/4	105	65	29.9	20.0
APW00038	1/2	3/4	1/8	50	2-1/4	100	60	25.0	15.0
APW00046	5/8	7/8	1/8	50	2-1/2	95	55	20.0	10.0
APW00054	3/4	1-1/16	5/32	50	3-1/4	85	45	10.0	5.0
APW00064	1	1-3/8	3/16	50	5	75	40	12.0	7.0

\*Working pressures are calculated at a 1:4 ratio relative to burst pressure using ASTM D1599.

The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the tubing's ability to withstand pressures including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the tubing for use.

## Norprene® A-60-F I B. Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness Shore A, 15 Sec	D2240-02	61
Color	—	Cream
Tensile Strength psi (MPa)	D412-98	1000 (6.9)
Ultimate Elongation, %	D412-98	375
Tear Resistance lb-f/inch (kN/m)	D1004-94	120 (21)
Specific Gravity	D792-00	0.98
Water Absorption, % 24 hrs. @ 23° C	D570-98	0.30
Compression Set Constant Deflection, % @158°F (70°C) for 22 hrs.	D395-01 Method B	30
Brittleness by Impact Temp., °F (°C)	D746-98	-75 (-60)
Maximum Recommended Operating Temp., °F (°C)	—	275 (135)
Dielectric Strength v/mil (kV/mm)	D149-97	535 (21.1)
Tensile Modulus, @ 100% psi (MPa)	D412-98	410 (2.8)
@ 300% psi (MPa)		800 (5.5)
Tensile Set, %	D412-98	57

Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

**NORPRENE® TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL**

Norprene® is a registered trademark.

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**IMPORTANT:** It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses. Laboratory and clinical tests must be conducted in accordance with applicable regulatory requirements in order to determine the safety and effectiveness for use of tubing in any particular application.

For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product to be free from defects in materials and workmanship. Our only obligation will be to replace any portion proving defective or at our option to refund the purchase price thereof. User assumes all other risk, if any, including the risk of injury, loss or damage, direct or consequential, arising out of the use, misuse or inability to use this product. THIS WARRANTY IS IN LIEU OF THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. No deviation is authorized.

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