

TYGON® Ultra Chemical Resistant Tubing



Tygon® 2375 provides the highest degree of chemical resistance in clear, flexible tubing.

Unequaled Chemical Resistance

Until now, many applications for clear flexible tubing were limited due to chemical attack from the fluid being transported. Tygon® 2375 Ultra Chemical Resistant Tubing broadens the range of usability with its expanded chemical resistance. The tubing is virtually unaffected by acids, bases, ketones, salts and alcohols (see Relative Chemical Resistance Properties chart on other side).

Environmentally Friendly

Tygon® 2375 Ultra Chemical Resistant Tubing is unique when it comes to disposing. When properly incinerated, it does not release hazardous and corrosive hydrochloride gas, which contributes to acid rain.

Non-DEHP and Plasticizer Free

Tygon® 2375 Ultra Chemical Resistant Tubing is entirely free of plasticizers, eliminating fluid contamination resulting from leaching plasticizers, a common occurrence with other flexible tubing.

Longer Life

Tygon® 2375 has improved the maximum working pressure by 30-50% compared to 2075. It will not embrittle or crack prematurely due to extraction of plasticizer, thus providing a longer service life.

FORMULATION 2375 (Replaces Tygon® 2075)

Provides the highest degree of chemical resistance in clear, flexible tubing

Features/Benefits

- Improved pressure rating by 30-50%
- Outstanding chemical resistance
- Non-DEHP for high purity
- Plasticizer-free for low extractables
- Safer disposal – releases no harmful and corrosive hydrochloride gas
- Smoother inner surface – provides better flow and inhibits particulate build-up
- Low sorption – to minimize cross contamination
- Clear tubing for easier and better observation
- Industry compliances: FDA, EU Food Contact 2002/72/EC, NSF 51 food standards
- REACH

Typical Applications

- Chemical transfer systems
- Transfer lines for chemical analyzers
- Detergent supply lines
- Battery acid filling
- Ink and printing fluid dispensing
- Industrial X-ray processing
- Power generation sampling and drain lines
- Paint and solvent production
- Hazardous materials handling
- Wine dispensing

Tygon® 2375 Manufactured Sizes and Pressures

Saint-Gobain Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Max. Working Pressure at 73°F (psi)*	Minimum Bend Radius (inches)	Vacuum Rating, In. of Mercury at 73°F
AJK00002	1/16	1/8	1/32	40.0	1/4	29.9
AJK00003	1/16	3/16	1/16	65.0	1/8	29.9
AJK00004	3/32	5/32	1/32	25.0	1/4	29.9
AJK00007	1/8	1/4	1/16	40.0	1/4	29.9
AJK00009	5/32	7/32	1/32	20.0	1/4	29.9
AJK00012	3/16	5/16	1/16	30.0	1/2	29.9
AJK00017	1/4	3/8	1/16	25.0	3/4	29.9
AJK00022	5/16	7/16	1/16	20.0	1-1/4	29.9
AJK00027	3/8	1/2	1/16	17.0	1-1/2	20.0
AJK00029	3/8	5/8	1/8	25.0	1-1/8	29.9
AJK00038	1/2	3/4	1/8	25.0	1-1/2	29.9
AJK00046	5/8	7/8	1/8	20.0	2-1/2	29.9
AJK00053	3/4	1	1/8	17.0	2-3/4	20.0
AJK00064	1	1-3/8	3/16	19.0	3-1/4	25.0

*Working pressures are calculated at a 1:5 ratio relative to burst pressure using ASTM D1599.

The values listed for working 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.

Tygon® 2375 Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness Shore A, 15 Sec	D2240	75
Color	-	Clear
Tensile Strength psi (MPa) (at break)	D412	1900 (13.1)
Ultimate Elongation, %	D412	850
Tear Resistance lb-f/inch (kN/m)	D1004	240 (42.0)
Specific Gravity	D792	0.9
Water Absorption, % 24 hrs. @ 23°C	D570	<0.01
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs.	D395 Method B	100
Brittleness By Impact Temp., °F (°C)	D746	-103 (<-75)
Maximum Recommended Operating Temp., °F (°C)	-	130 (54)
Low Temp. Flexibility, °F (°C)	-	-103 (-75)
Tensile Modulus, @ 100% Elongation, psi (MPa)	D412	425 (2.9)
Tensile Set, 75% of Ultimate Elongation, %	D412	300

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.

Relative Chemical Resistance Properties*

Tubing	Acids			Bases			Salts	Alcohols	Ketones
	Conc.	Med.	Weak	Conc.	Med.	Weak			
Tygon® 2375	F	E	E	E	E	E	E	E	F
Fluoroelastomers	E	E	E	U	F	F	E	F	U
Urethane	U	U	U	U	F	F	F	U	U
PVC	F	E	E	E	E	E	E	F	U
Thermoplastic Rubber	U	F	F	F	E	E	E	F	U
Neoprene	U	F	E	E	E	E	E	E	U
Nitrile Rubber	F	F	E	U	E	E	E	E	U
Silicone	U	U	U	U	F	F	F	F	U
EVA	U	F	E	F	E	E	E	E	U

E = Excellent F = Fair U = Unsatisfactory

*All tests conducted at room temperatures.

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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.

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