

# TYGON® Inert Tubing



Chemically resistant and non-contaminating, Tygon® Inert Tubing provides the outstanding clarity and flexibility of Tygon® tubing combined with the inertness of a fluoropolymer.

## Excellent Chemical Resistance

Without sacrificing the flexibility, glass-like clarity and outstanding bend radius for which Tygon® tubing is known, Tygon® Inert Tubing can handle many applications where flexible tubing of the past could not be used. Its FEP inner liner provides the ultimate in chemical resistance and can accommodate a wide variety of fluids from corrosives to MEK-based solvents. The inert liner limits potential of fluid contamination during transfer. Tygon® Inert Tubing will not impart odor or taste, making it well-suited for food and beverage use.

Tygon® Inert Tubing combines all the benefits of Tygon® with the inertness of a fluoropolymer, providing superior performance in many applications and industries.

## Meets FDA Criteria for Food Contact

Non-toxic, taste-free and odor-free, Tygon® Inert Tubing meets FDA 21 CFR Part 177.1550 Criteria for contact with food products.

## FORMULATION SE-200

*For the ultimate in  
chemical resistance,  
purity, flexibility  
and clarity*

### Features/Benefits

- Crystal clarity
- Improved flexibility when compared to rigid fluoropolymer tubings
- Chemically resistant and inert
- Non-contaminating fluid path
- Meets FDA criteria for food contact

### Typical Applications

- Chemical processing
- Pharmaceutical processing and filling
- Paint and solvent production and packaging
- Adhesive transfer lines
- Semiconductor processing
- Photographic processing equipment
- Beverage dispensing
- Ink and toner feed lines
- Fertilizer and pesticide distribution

## TYGON® SE-200 Manufactured Sizes and Pressures

Saint-Gobain Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Length (feet)	Minimum Bend Radius (inches)	Maximum Working Pressure	
						at 73°F (psi)*	at 160°F (psi)*
AJD00002	1/16	1/8	1/32	50	1/2	100	45
AJD00007	1/8	1/4	1/16	50	1	85	40
AJD00012	3/16	5/16	1/16	50	1-1/2	75	38
AJD00017	1/4	3/8	1/16	50	2	55	35
AJD00028	3/8	9/16	3/32	50	3-1/2	50	25
AJD00038	1/2	3/4	1/8	50	4	45	18
AJD00053	3/4	1	1/8	50	4-1/2	30	12

\*Working pressures are calculated at a 1:5 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.

**TYGON® SE-200 TUBING IS NOT TO BE USED IN VACUUM APPLICATIONS**

## TYGON® SE-200 Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness Shore A, 15 Sec	D2240	67*
Color	-	Clear
Tensile Strength psi (MPa)	D412	2000 (13.8)
Ultimate Elongation, %	D412	350
Tear Resistance lb-f/inch (kN/m)	D1004	165 (29)
Specific Gravity	D792	1.45
Water Absorption, % 24 hrs. @ 23°C	D570	<0.01
Compression Set Constant Deflection, % @158°F (70°C) for 22 hrs.	D395 Method B	53
Brittleness By Impact Temp., °F (°C)	D746	-40 (-40)
Maximum Recommended Operating Temp., °F (°C)	-	170 (77)
Dielectric Strength v/mil (kV/mm)	D149	620 (24.4)
Tensile Modulus, @ 100% Elongation, psi (MPa) @ 300% Elongation, psi (MPa)	D412	650 (4.5) 1450 (3.1)
Tensile Set, %	D412	76

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.

\*Durometer measured on outer jacket

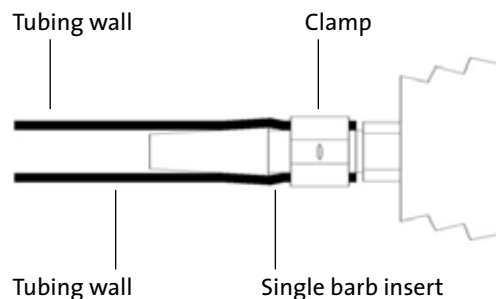
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## Fittings for Tygon® SE-200 Tubing

Single barb insert fittings are recommended for use with Tygon® SE-200 tubing.

Single barb insert fittings have a land behind the barb that allows a clamp to be fastened over the tubing (see picture below). Note: Please be sure not to over-tighten the clamp as it might result in damage to the tubing.

Also: To facilitate entry of the fitting into the tubing, the outside diameter at the end of the tapered fitting must be smaller than the inside diameter.



## Saint-Gobain Performance Plastics

2664 Gilchrist Road  
Akron, OH 44305  
Tel: 800-798-1554  
Tel: (330) 798-9240  
Fax: (330) 798-6968



**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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