

TYGON[®]
Excellence By Design



Tygon[®] F-4040-A

High Performance Fuel and Lubricant Tubing for Small Engines

Designed to Resist Hydrocarbons

Specifically designed to handle most fuels and industrial lubricants, Tygon[®] Fuel and Lubricant Tubing resists the swelling and hardening caused by hydrocarbon-based fluids. This significantly reduces the risk of failure due to cracking and leakage. Its minimum extractability safeguards the liquid or vapor being transferred against adulteration.

Because it's extremely flexible, Tygon Fuel and Lubricant Tubing simplifies installation, even in tight places. It is translucent yellow for positive identification and to allow easy flow monitoring. It is routinely used to handle gasoline, kerosene, heating oils, cutting compounds and glycol-based coolants.

Routinely Specified in Fuel and Lubricant Applications

A consistent performer lot after lot, Tygon Fuel and Lubricant Tubing is the most requested fuel and lubricant tubing for a variety of applications — from small engine fuel lines to coolant transfer.

Other Tygon formulations are available to meet new permeation standards.

Features and Benefits

- Resists embrittlement
- Compatible with most hydrocarbons
- Resistant to swelling
- Highly flexible, easy to install
- Specifically developed for fuels and lubricants
- Ozone and UV light resistant

Typical Applications

- Small engine fuel lines
- General automotive
- Recreational vehicles
- Lawn and garden equipment
- Coolant transfer
- Heating fuels
- Cutting compounds
- Polishing equipment
- Lubrication lines


SAINT-GOBAIN

Tygon® F-4040-A

www.processsystems.saint-gobain.com

Tygon F-4040-A

Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Length (feet)	Min. Bend Radius (inches)	Max. Working Pressure at 73°F (psi)*	Vacuum Rating In. of Mercury at 73°F
AAG00700	.080	.140	.030	50	1/4	40	29.9
AAG00165	3/32	3/16	3/64	50	1/4	50	29.9
AAG00007	1/8	1/4	1/16	50	3/8	50	29.9
AAG00012	3/16	5/16	1/16	50	5/8	35	29.9
AAG00017	1/4	3/8	1/16	50	1	30	22.0
AAG00022	5/16	7/16	1/16	50	1-3/8	25	14.0
AAG00027	3/8	1/2	1/16	50	1-7/8	20	10.0
AAG00029	3/8	5/8	1/8	50	1-1/8	35	29.9
AAG00032	7/16	9/16	1/16	50	2-3/8	15	7.0
AAG00036	1/2	5/8	1/16	50	2-7/8	15	5.0
AAG00038	1/2	3/4	1/8	50	1-3/4	30	22.0
AAG00046	5/8	7/8	1/8	50	2-1/2	25	14.0
AAG00053	3/4	1	1/8	50	3-1/4	20	10.0

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

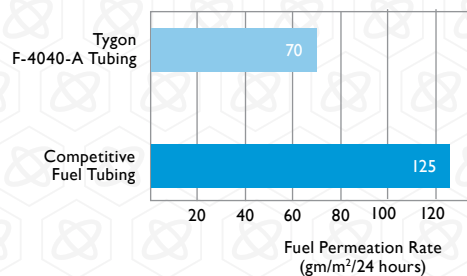
Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15 Sec	D2240	57
Tensile Strength, psi (MPa)	D412	1,820 (12.5)
Ultimate Elongation, %	D412	310
Tear Resistance, lb-f/in. (kN/m)	D1004	167 (29)
Specific Gravity	D792	1.26
Water Absorption, % 24 hrs. @ 23°C	D570	0.49
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs.	D395 Method B	65
Maximum Recommended Operating Temp. °F (°C)	-	165 (74)
Tensile Modulus, @ 100% Elongation, psi (MPa)	D412	910 (6.3)
Tensile Set, %	D412	50
Color	-	Translucent Yellow
Brittleness by Impact, °F (°C)	D746	-35 (-37)
Dielectric Strength, v/mil (kV/mm)	DI49	403 (15.8)

Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip, 0.075" thick molded ASTM plaques or molded ASTM durometer buttons. Size of tubing tested is 1/8" I.D. x 1/4" O.D.

Comparative Fuel Permeation Rate of Tubing

The table below summarizes the results of an in-house study conducted on permeation of unleaded, alcohol-free 87 octane gasoline in 1/4" I.D. x 3/8" O.D. tubing. Testing was conducted in accordance with SAE J1527.



The performance of tubing is affected by the conditions of use and equipment utilized, along with size and wall thickness of the tubing tested. The data above is presented for information only and should not be utilized for specification purposes.

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.

www.processsystems.saint-gobain.com


Saint-Gobain Performance Plastics
 2664 Gilchrist Road
 Akron, OH 44305
 1-800-798-1554
 Tel: (330) 798-9240
 Fax: (330) 798-6968

Saint-Gobain Performance Plastics
 BP 14-La Mothe-aux-Aulnaies
 F-89120 Charny, France
 Tel: (33) 3-86-63-78-78
 Fax: (33) 3-86-63-77-77

Saint-Gobain Performance Plastics
 10801-5, Haramura
 Suwa-gun Nagano, 391-0106
 Japan
 Tel: (81) 266-79-6400
 Fax: (81) 266-70-1001

NOTE: The data and details given in this document are correct and up to date. This document is intended to provide information about the product and possible applications. This document is not the product specification and does not provide specific features, nor does it guarantee product performance in specific applications. Saint-Gobain cannot anticipate or control the conditions of the field and for this reason strongly recommends that practical tests are conducted to ensure that the product meets the requirements of a specific application.

Tygon® is a registered trademark.