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 is 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

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Part Number	ID	OD	Wall Thickness	Length	Min. Bend Radius	Max. Working Pressure	Vacuum Rating
	(in.)	(in.)	(in.)	(ft.)	(in.)	73°F (psi*)	inHg at 73°F
AAG00700	2/25	7/50	3/100	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.

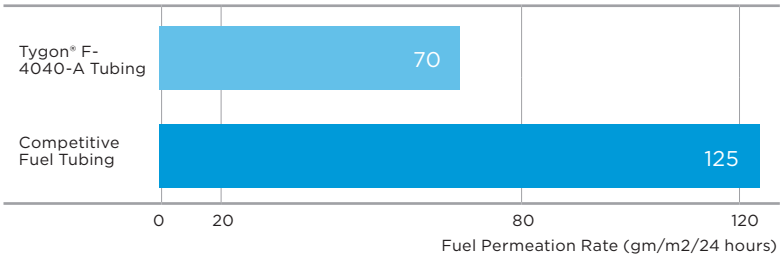
Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15s	D2240	57
Tensile Strength, psi (MPa)	D412	1,820 (12.5)
Ultimate Elongation, %	D412	310
Tear Resistance, lb-f/in (kN/m)	D1004	167 (29.0)
Specific Gravity	D792	1.26
Water Absorption, % at 73°F (23°C) for 24 hrs.	D570	0.49
Compression Set Constant Deflection, % at 158°F (70°C) for 22 hrs.	D395 Method B	65
Maximum Recommended Operating Temp., °F (°C)	—	165 (74)
Tensile Modulus, at 100% Elongation, psi (MPa)	D412	910 (6.3)
Tensile Set, at 75% Elongation	D412	50
Color	—	Yellow
Brittleness by Impact Temp., °F (°C)	D746	-35 (-37)
Dielectric Strength, v/mil (kV/mm)	D149	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.

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" ID x 3/8" OD tubing. Testing was conducted in accordance with SAEJ1527.



The performance of tubing in peristaltic pumping applications 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.

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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.

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