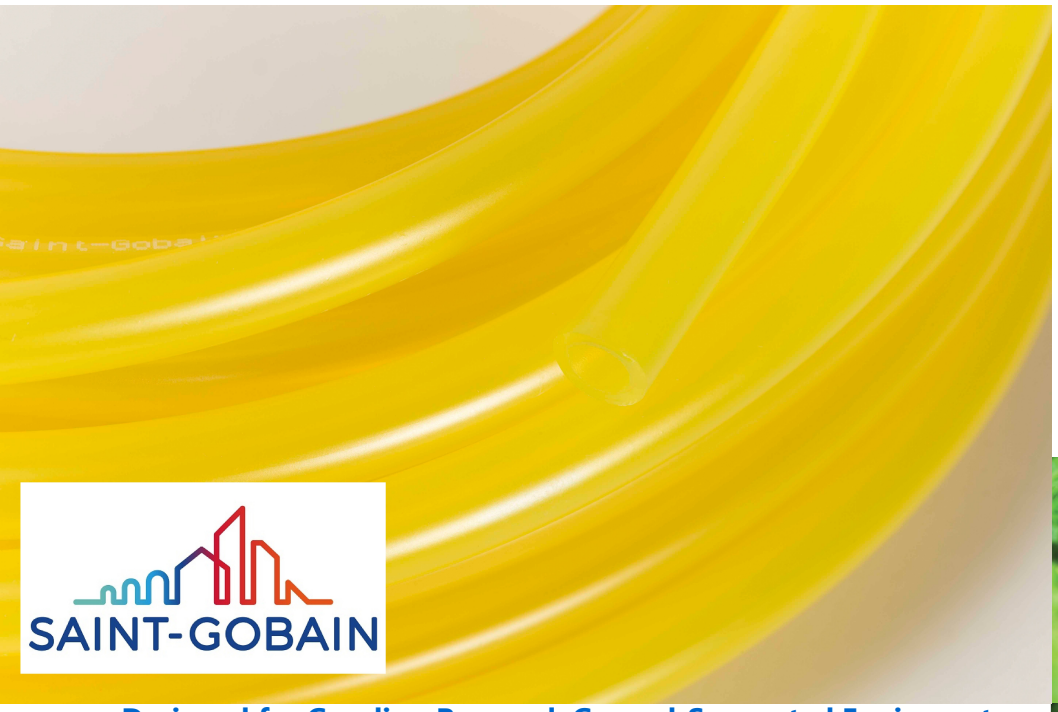
OPTUBUS
Fluid Transfer Components

Tygon® LP-1100

Lawn- and **G**arden Power Equipment



Gasoline **T**ubing meets **EPA** and **CARB** **E**mission **S**tandards

Designed for Gasoline-Powered, Ground-Supported Equipment

Innovative Tygon® low permeation fuel tubing is designed to meet the EPA and CARB evaporation emission standards of 15mg/m2/day. Tygon® LP-1100 Tubing has superior resistance to fuels and industrial lubricants; the fluoropolymer liner is compatible with higher ethanol blend gasolines up to 100%. Its robust multi-layer design and construction is resistant to swelling, hardening and cracking caused by hydrocarbon-based fluids or sour gas. Tygon® LP-1100 Tubing is abrasion, cut and tear resistant for longer service life. Ideal for lawn and garden power equipment, small engine fuel lines as well as lubricating oil and grease transfer lines. Tygon® LP-1100 Tubing is ozone and UV light resistant. It is highly flexible, easy to install and offers excellent fitting retention. Tygon® LP-1100 Tubing is designed for fuel transfer line only, and is not recommended for fuel submersible applications.

Typical Applications

- Small engine fuel transfer lines
- Lawn and garden power equipment
- Lubricating oil and grease transfer lines
- Lawn mowers
- Riding mowers
- Motorcycle

Features and Benefits

- Conforms to new government regulatory standards for clean air
- Fluoropolymer liner compatible with higher ethanol blend gasoline
- Robust multi-layer design and construction
- Reduces hydrocarbon vapors escaping or permeating into the atmosphere
- Wide temperature range from -20 °F to 180 °F (-28.9 °C to 82.2 °C)
- Reduces photo-chemical smog
- High abrasion, cut and tear resistance for longer service life
- Compatible with 100% Ethan

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Tygon® LP-1100 Tubing Standard Sizes

Part Number	ID	OD	Wall
TY2,03AY3,56	2,03 mm (2/25")	3,56 mm (7/50")	0,76 mm (3/100")
TY2,38AY4,76	2,38 mm (3/32")	4,76 mm (3/16")	1,19 mm (3/64")
TY3,18AY6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")
TY4,76AY7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")
TY6,35AY9,53	6,35 mm (1/4")	9,53 mm (3/8")	1,59 mm (1/16")

*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.

Typical Physical Properties of Tygon® LP-1100 Tubing

Property	ASTM Method	Value of Rating
Durometer Hardness	D2240	69° Shore A, 15s
Color	-	yellow
Specific Gravity	D792	1,29
Water Absorption, 24 hrs. @ 23°C	D570	0.49%
Compression set Constant Deflection, 22 hrs. @ 70°C	D395 Method B	65,00%
Tensile Strength	D412	16,5 MPa (2.400 psi)
Ultimate Elongation	D412	450,00%
Tear Resistance	D1004	29 kN/m (167 lb-f/In)
Tensile Stress @100% Elongation	D412	6,3 MPa (910 psi)
Tensile Set @75% Elongation	D412	50
Maximum Recommended Operating Temperature	-	82 °C (180°F)
Brittleness by Impact Temperature	D746	-37°C (-35°F)

Product Characteristics

Opacity	Flammability Rating	Fuel Permeation (total Tube)	
Translucent	UL 94 HB	CA Phase II, 40°C	<15 g/m²/d
		CE 10, 40°C	<15 g/m²/d

Regulatory Compliance

40 CFR 1060 EPA Regulation	Conforms
CA SORE Chapter 15, Article I	Conforms
CA Component Executive Order Number	Q-19-068
CA Component Executive Order Size Limitations	2/25" ID and above
EPA Certification Number	SGN-ENAPNR-0A-03
ANSI B175.2 Annex D Standard	Conforms

Unless otherwise noted, all tests were conducted at room temperature 23°C (73°F). Values shown were determined on 1.905 mm (0,075") thick extruded strip or 1.905 mm (0,075") thick molded ASTM plaques or molded ASTM durometer buttons.

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