

# TRANSFLOW S<sup>3</sup>™ VACUUM

*The only choice for phthalate-free flexible tubing*

## Dairy and Vacuum Applications

Transflow S<sup>3</sup>™ Vacuum from Saint-Gobain Performance Plastics is now phthalate-free. Saint-Gobain is proud to be among the first companies to offer sustainable flexible tubing products. The bio-based Transflow S<sup>3</sup>™ line combines the high performance standards customers demand with an eco-friendly tubing design.

## Reduced Maintenance and Inspection Concerns

Transflow S<sup>3</sup>™ Vacuum tubing is ideally suited for supply air transport. The smooth inner surface is less susceptible to particle entrapment, which can restrict air flow, while crystal clarity permits detection of equipment deficiencies such as backflow of milk into the air lines. Transflow S<sup>3</sup>™ Vacuum tubing is designed to work in tandem with Transflow S<sup>3</sup>™ M-34-R to provide a vacuum tube and easy fluid flow within the milking process.

## The Mark of Quality

Every foot of Transflow S<sup>3</sup>™ Vacuum Tubing has been embedded with a trademark blue stripe within the tubing walls. The embedded blue stripe is your assurance of receiving genuine Transflow® tubing, the world's finest raw milk tubing produced specifically for the dairy industry.

## Regulatory Standards

Transflow S<sup>3</sup>™ complies with FDA, NSF, 3-A and Japan Food Sanitation Law # 370/1959 for many foods and beverages. Transflow S<sup>3</sup>™ tubing products do not contain chemicals listed in California's Prop 65.

\* The compliance status of Transflow S<sup>3</sup>™ Vacuum according to the marketing region can be found on [www.TygonS3.com](http://www.TygonS3.com). Please refer to the detailed document of compliance for a complete compliance information and appropriate use instruction. The complete compliance information and use instructions can be found at [www.TygonS3.com](http://www.TygonS3.com).



## Transflow S<sup>3</sup>™ VACUUM A24 and A24-C Features/Benefits

- Holds full vacuum at room temperature
- Will not crack and age like rubber tubing
- Lightweight and flexible for quick installation
- Non-wetting properties allow easy cleaning and complete drainage
- Durability for long and reliable service
- Contains no BPA or phthalates
- To be used in conjunction with Transflow S<sup>3</sup>™ M-34-R

## Typical Applications

- Raw milk transport lines\*
- Dairy processing\*

**RELATIVE CHEMICAL RESISTANCE PROPERTIES FOR TRANSFLOW S<sup>3</sup>™ VACUUM A-24 and A-24-C\***

Acids			Bases			Salts	Alcohols	Ketones
Conc.	Med.	Weak	Conc.	Med.	Weak			
F	E	E	F	E	E	E	F	U

E = Excellent F = Fair U = Unsatisfactory  
 \*All tests conducted at room temperature.

**Product Characteristics**

Opacity	A-24 A-24-C	Clear Opaque
FDA Compliant for Food Contact		Yes
NSF 51 Standard		No
USP Class VI		No

**Tubing Properties**

3/8" ID x 5/8" OD	—
Minimum Bend Radius, in	1-1/8
Max. Working Pressure @ 73 oF, psi	25
Vacuum Rating @ 73 oF, inHg	29.9

**Typical Physical Properties**

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15 Sec	D2240	56
Tensile Strength, psi (MPa)	D412	1,750 (12.1)
Ultimate Elongation, %	D412	425
Tear Resistance, lb-ff/inch (kN/m)	DI004	173 (31)
Specific Gravity	D792	1.21
Water Absorption, % 24 hrs. @ 73°F (23°C)	D570	0.21
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs.	D395 Method B	64
Brittleness Temp., °F (°C)	D746	-32 (-36)
Maximum Recommended Operating Temp. °F (°C)	-	165 (74)
Tensile Stress @ 100% Elongation, psi (MPa)	-	582 (4.0)
Tensile Set, %	D412	95
Color		
A-24	-	Clear
A-24-C	-	Black

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.

**Transflow S<sup>3</sup>™ Cleaning Instructions**

To extend the usable life of Transflow S<sup>3</sup>™ tubing and reduce the risk of bacterial growth resulting from a buildup of milksoil film, the following cleaning and sanitary procedures must be followed:

- Following milking and dumping, rinse tubing with clean water at 110°F without recirculating until discharge is clear.
- Wash tubing with alkaline cleaner (containing no caustic soda) for 10-15 minutes at 150°F; final dump temperature should not be below 115°F.
- Use an acid rinse to prevent milkstone deposits.
  - Perform daily after each cleaning for 5 minutes with cold- to room-temperature water.
  - Perform a once-weekly acid rinse for 15 minutes with 110°F - 140°F water in place of the alkaline cleaner used in Step 2 above.
- Purge moisture by draining and passing warm filtered air through the tubing until complete dryness is achieved.
- Sanitize tubing immediately prior to use following the manufacturer's recommended procedures.

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.

**TRANSFLOW S<sup>3</sup>™ VACUUM TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.**



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Transflow® is a registered trademark.



**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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