

SAINT-GOBAIN MEDICAL

TYGON[®] MPF-300

Tubing for Medical Device Manufacturers

Tygon[®] MPF-300 tubing is a clear polymer not formulated with PVC or DEHP, however, trace levels of DEHP are not controlled. This flexible tubing is designed to replace PVC in medical devices in, which DEHP plasticizers and leachables are not desired. Tygon MPF-300 has excellent bonding strength and is ideally suited for fluid and oxygen administration applications.

BIOCOMPATIBILITY CHARACTERISTICS

Tygon MPF-300 is developed specifically for medical applications and tested to various elements of ISO 10993 including hemocompatibility, implantation, irritation and skin sensitization, systemic toxicity, and cytotoxicity.

PVC REPLACEMENT TUBING - THE RIGHT CHOICE

Increasing concerns in Europe and North America regarding health hazards and environmentally friendly disposal of DEHP plasticizers led to the development of the MPF product line. Tygon MPF-300 is designed and manufactured without the intentional addition of DEHP.



TYGON[®]
Trusted Performance

FEATURES/BENEFITS

- PVC replacement
- Tubing not made with plasticizers
- EtO and gamma sterilizable
- Cleanroom manufacturing available
- Excellent chemical resistance
- Resistant to abrasion

TYPICAL APPLICATIONS

- Fluid administration
- Oxygen administration
- Waste disposal for diagnostic equipment

Product recommendations are based on a combination of industry knowledge, material science expertise, and/or material testing data. Contact Saint-Gobain Medical for further tubing recommendation information.



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TYGON® MPF-300 TYPICAL PHYSICAL PROPERTIES*

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15 sec.	D2240-02	83
Tensile Strength, psi (MPa)	D412-98	3,595 (41.4)
Ultimate Elongation, %	D412-98	553
Tear Resistance, lbf/inch (kN/m)	D624-91, Die C	509 (83.1)
Specific Gravity	D792-02	1.11
Water Absorption, % 24 hrs. @73°F (23°C)	D570-98	1.13
Compression Set Under Constant Deflection, % at 158°F (70°C) for 22 hrs.	D395-02 Method B	29
Maximum Recommended Operating Temp., °F (°C)	—	180 (82)
Brittleness Temperature, °F (°C)	D746-98	-112 (-80)
Tensile Modulus, at 100% Elongation, psi (MPa)	D412-98	1,546
Tensile Set, %	D412-98	410
Color	—	Transparent Natural

*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.

TYGON® MPF-300 TUBING STERILIZATION METHODS

Physical properties are not significantly impacted by the following sterilization methods:

- Gas - EtO (Ethylene Oxide)
- Gamma Radiation (25 kGy/2.5 Mrad)

TYGON® MPF-300 TUBING CHARACTERISTICS

Tygon MPF-300 has met the following test requirements:

- Genotoxicity, as described in ISO 10993-3 (2014)**
- Hemolysis, as described in ISO 10993-4 (2017)**
- Cytotoxicity, as described in ISO 10993-5 (2009)**
- Intramuscular implant, as described in ISO 10993-6 (2016, after steam and EtO sterilization)
- Systemic toxicity, as described in ISO 10993-11 (2017, after steam and EtO sterilization)
- Irritation, as described in ISO 10993-23 (2021, after steam and EtO sterilization)

** Tested after steam, gamma and EtO sterilization

NOTE: The information provided pertains only to product manufactured at the Saint-Gobain Akron, Ohio facility. Saint-Gobain Performance Plastics Corporation's Life Science ("Saint-Gobain") products that are used as components in the manufacture of any Medical Devices (as defined by the FDA) are sold by Saint-Gobain only and exclusively to Medical Device manufacturers for use in the manufacture, assembly or distribution of their medical devices. Medical Device manufacturers, to whom Saint-Gobain sells components or for whom Saint-Gobain acts as a subcontractor for finished products, are solely responsible for determining whether their finished products are a medical device and complying with the appropriate certifications and registrations.

This document is intended to provide information about the product to enable you to consider whether generally the Product meets your application need and is not intended to provide product specification. This document should not be considered a Product warranty or guaranty. To the extent this document mentions any tests done by Saint-Gobain, such tests are done under controlled laboratory circumstances and hence other factors in your use and application may impact such values.

