

SAINT-GOBAIN MEDICAL

TYGON® ND 100-65

Tubing for Medical Device Manufacturers

Tygon® ND 100-65 tubing was engineered for optimal performance in medical device applications. This tubing is clear for easy visualization of fluid flow, has a robust portfolio of biocompatibility characteristics, and is easy to bond and weld.

BIOCOMPATIBILITY CHARACTERISTICS

Tygon ND 100-65 tubing has been tested to various elements of ISO 10993 and United States Pharmacopeia standards including cytotoxicity, hemocompatibility, genotoxicity, and USP <88> Class VI plastic material. Tygon ND 100-65 is designed and manufactured without the intentional addition of animal-derived materials or DEHP.

EASY TO BOND/WELD

Consistent with many medical tubing market requirements, Tygon ND 100-65 can be effectively bonded/welded using the following methods: heat, electronic (RF)/ultrasonic, solvent, and adhesive. Consider the following factors when selecting a bonding/welding method: security of the bond required, effect on the integrity of the materials to be joined, and presence of residues or extractables that may affect biocompatibility. When bonding procedures are not used, mechanical clamps are recommended to provide a secure attachment.

IDEAL CHOICE FOR MEDICAL APPLICATIONS

The characteristics and physical properties of Tygon ND 100-65 tubing make it an ideal choice for dialysis, drug delivery, respiratory therapy, diagnostic equipment, and peristaltic pumps for various fluids.

TYGON®
Trusted Performance



FEATURES/BENEFITS

- Meets criteria of various ISO 10993 and USP tests
- Regular evaluations to ensure REACH compliance
- Crystal clear for easy visualization of fluid flow
- Effectively bonded/welded using various methods
- Cleanroom manufacturing available

TYPICAL APPLICATIONS

- Blood and IV solutions
- Chemotherapy drug delivery
- Diagnostic equipment, IVDs
- Dialysis equipment
- Minimally invasive devices
- Peristaltic pumps
- Respiratory therapy

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® ND 100-65 TUBING MANUFACTURED SIZES AND PRESSURES*

Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Length (feet)	Minimum Bend Radius (inches)	Max. Suggested Working Pressure at 73°F (psi)**	Vacuum Rating In. of Mercury at 73°F
ADF00001	1/32	3/32	1/32	50	1/8	100	29.9
ADF00002	1/16	1/8	1/32	50	1/4	55	29.9
ADF00003	1/16	3/16	1/16	50	1/8	100	29.9
ADF00004	3/32	5/32	1/32	50	3/8	40	29.9
ADF00005	3/32	7/32	1/16	50	1/4	70	29.9
ADF00006	1/8	3/16	1/32	50	1/2	30	25
ADF00007	1/8	1/4	1/16	50	3/8	55	29.9
ADF00009	5/32	7/32	1/32	50	3/4	25	15
ADF00010	5/32	9/32	1/16	50	1/3	45	29.9
ADF00011	3/16	1/4	1/32	50	1	20	10
ADF00012	3/16	5/16	1/16	50	5/8	40	29.9
ADF00013	3/16	3/8	3/32	50	1/8	55	29.9
ADF00014	3/16	7/16	1/8	50	3/8	70	29.9
ADF00016	1/4	5/16	1/32	50	1-5/8	18	5
ADF00017	1/4	3/8	1/16	50	1	30	25
ADF00018	1/4	7/16	3/32	50	3/4	45	29.9
ADF00019	1/4	1/2	1/8	50	5/8	55	29.9
ADF00022	5/16	7/16	1/16	50	1-3/8	25	15
ADF00023	5/16	1/2	3/32	50	1	35	29.9
ADF00024	5/16	9/16	1/8	50	7/8	45	29.9
ADF00027	3/8	1/2	1/16	50	1-3/4	20	10
ADF00028	3/8	9/16	3/32	50	1-3/8	30	25
ADF00029	3/8	5/8	1/8	50	1-1/8	40	29.9
ADF00032	7/16	9/16	1/16	50	2-1/4	20	8
ADF00033	7/16	5/8	3/32	50	1-3/4	25	18
ADF00034	7/16	11/16	1/8	50	1-3/8	35	29.9
ADF00036	1/2	5/8	1/16	50	2-7/8	18	6
ADF00037	1/2	11/16	3/32	50	2-1/8	25	15
ADF00038	1/2	3/4	1/8	50	1-3/4	30	25
ADF00041	9/16	3/4	3/32	50	2-1/2	20	10
ADF00045	5/8	13/16	3/32	50	3	20	9
ADF00046	5/8	7/8	1/8	50	2-3/8	25	15
ADF00047	5/8	15/16	5/32	50	2	30	25
ADF00053	3/4	1	1/8	50	3-1/4	20	10
ADF00059	7/8	1-1/8	1/8	50	4-1/8	20	8
ADF00062	1	1-1/4	1/8	50	5-1/8	18	5
ADF02002	1/16	1/8	1/32	100	1/4	55	29.9
ADF02003	1/16	3/16	1/16	100	1/8	100	29.9
ADF02004	3/32	5/32	1/32	100	3/8	40	29.9
ADF02006	1/8	3/16	1/32	100	1/2	30	25
ADF02007	1/8	1/4	1/6	100	3/8	55	29.9
ADF02011	3/16	1/4	1/32	100	1	20	10
ADF02012	3/16	5/16	1/16	100	5/8	40	29.9
ADF02017	1/4	3/8	1/16	100	1	30	25
ADF02018	1/4	7/16	3/32	100	3/4	45	29.9
ADF02022	5/16	7/16	1/16	100	1-3/8	25	15
ADF02027	3/8	1/2	1/16	100	1-3/4	20	10
ADF02028	3/8	9/16	3/32	100	1-3/8	30	25
ADF02029	3/8	5/8	1/8	100	1-1/8	40	29.9
ADF02037	1/2	11/16	3/32	100	2-1/8	25	15
ADF02038	1/2	3/4	1/8	100	1-3/4	30	25

*Safety factor of 5:1 ratio of burst pressure to working pressure.
Custom sizes also available.

NOTE: The information provided pertains only to product manufactured at the Saint-Gobain Akron, Ohio and Charny, France facilities. 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.

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TYGON® ND 100-65 TYPICAL PHYSICAL PROPERTIES**

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15 sec.	D2240	65
Color	—	Clear
Tensile Strength, psi (MPa)	D412	1,940 (13.4)
Ultimate Elongation, %	D412	373
Tear Resistance, lbf/inch (kN/m)	D1004	185 (32.4)
Specific Gravity	D792	1.19
Water Absorption, % 24 hrs. at 23°C	D570	0.10
Compression Set Under Constant Deflection, % at 158°F (70°C) for 22 hrs.	D395	60
Maximum Recommended Operating Temp., °F (°C)	—	165 (74)
Brittleness by Impact Temp., °F (°C)	D746	-44 (-42)
Tensile Modulus, at 100% Elongation, psi (MPa)	D412	1,109 (7.6)

**Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strips, 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

TYGON® ND 100-65 TUBING CHARACTERISTICS

Tygon ND 100-65 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)***
- Systemic toxicity, as described in ISO 10993-11 (2017)***
- Irritation, as described in ISO 10993-23 (2021)***

*** Tested after steam, gamma and EtO sterilization

TYGON® ND 100-65 TUBING STERILIZATION METHODS

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

- Autoclavable (steam 30 min at 15 psi, 250°F/121°C)
- EtO (Ethylene Oxide)
- Radiation (25 kGy/ 2.5 Mrad)



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