TYGON®

ND 100-80 Medical Tubing

Medical Products

From the ND Experts:
The next generation in non-DEHP tubing

Features/Benefits

- High rigidity for kink resistance
- Compatible with blood
- Clear, with a glass-smooth inner bore
- Reduced flexibility for suction applications
- REACH compliant

Typical Applications

- Intravenous or intra-arterial infusion

Plasticizer

- TOTM

IMPORTANT: This Saint-Gobain medical product is a medical component that is distributed exclusively to medical device manufacturers. Saint-Gobain's medical product is intended to be used in the manufacture of a medical device (i.e. physically incorporated into the medical device, or further processed by the medical device manufacturer) or in the assembly of a medical device before the medical device is packaged/labeled.

Caution: For manufacturing, processing or repacking.

TYGON® ND 100-80 Tubing

TYGON® ND 100-80, one of the medical industry's first non-DEHP tubing offerings, has been specifically formulated in a higher durometer that makes it possible to produce smaller diameter tubings with a high resistance to kinking and collapse.

Characteristics

TYGON® ND 100-80 is available exclusively to medical device customers in five extremely small sizes for use in in medical devices used in intravenous or intra-arterial infusion, and other surgical and hospital applications. It is rigid enough for easy handling, yet soft enough to reduce problems with puncturing.

Since TYGON® ND 100-80 is thermoplastic in nature, it can be fabricated into cannulas or protective sheath products using thermoforming and flaring techniques.

Based upon a unique chemistry developed by Saint-Gobain, TYGON® ND Series tubing was formulated to be Registration, Evaluation, Authorization and restriction of CHemical substances (REACH) compliant for DEHP. To ensure compliance, every individual compound lot is tested to ensure DEHP levels are <1000 ppm. During the extrusion process, individual product dimensions are maintained and monitored through in-line micrometers and off-line verification with computerized imaging equipment.

Consistent with many medical tubing market requirements, ND 100-80 material can be effectively bonded/welded using the following methods: heat, electronic (RF)/ultrasonic, solvent and adhesive. Factors to be considered when selecting the components include: 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 secure attachment.

Biocompatibility

TYGON® ND 100-80 is made from a biocompatible non-DEHP polymer material developed specifically for medical device needs. The product meets the requirement of the USP, Biological Test for Plastics, Class VI and REACH compliant.

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TYGON® ND 100-80 Inventoried Sizes

	Inside Diameter		Outside Diameter		Wall Thickness		Coil Length	French Sizes	Needle Gauge
Part Number	**Inches**	**mm**	**Inches**	**mm**	**Inches**	**mm**	**Feet**		
AAD04091	.010	.25	.030	.76	.010	.25	500	3	30
AAD04103	.020	.51	.060	1.52	.020	.51	500	5	23
AAD04119	.030	.76	.090	2.29	.030	.76	500	7	20 – 21
AAD04127	.040	1.02	.070	1.78	.015	.38	500	6	18 – 20
AAD04133	.050	1.27	.090	2.29	.020	.51	500	7	17 – 18

TYGON® ND 100-80 Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15 sec.	D2240	80
Color	—	Clear
Tensile Strength, psi (MPa)	D412	2,625 (18.1)
Ultimate Elongation, %	D412	350
Tear Resistance, lb-f/inch (kN/m)	D1004	275 (48.2)
Specific Gravity	D792	1.21
Water Absorption, % 24 hrs. @ 73°F (23°C)	D570	0.12
Compression Set, Constant Deflection, % @ 158°F (70°C) for 22 hrs.	D395 Method B	59
Maximum Recommended Operating Temp.,°F (°C)	—	185 (85)
Brittleness by Impact Temp., °F (°C)	D746	-31 (-35)
Tensile Modulus, @ 100% Elongation, psi (MPa)	D412	1,450 (10.0)

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® ND 100-80 Characteristics

The biocompatibility of TYGON® ND 100-80 has been tested and found to be non-toxic in the following test protocols:

Opacity	**Transparent**
FDA Approved for Food Contact	**No**
NSF 51 Standard	**No**
USP Class VI	**Yes**

Sterilization Methods

Autoclavable	**Yes**
Gas	**Yes**
Radiation	**Yes**

Saint-Gobain Non-DEHP tubing contains DEHP levels of <1000 ppm.

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