



FEP 열수축튜브 기술자료

Nordson Medical FEP Heat Shrink Tubing Datasheet · English Edition

Global Industrial Cable Management Solutions

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FLUOROPOLYMER (FEP) Heat Shrink Tubing

Nordson MEDICAL's FEP heat shrink tubing is a high-performance solution for complex applications, such as catheter reflow and tip forming. Its exceptional heat and chemical resistance, combined with easy processing, ensures durability and reliability while meeting medical device standards. Available in standard and custom sizes, our silicone-free FEP heat shrink tubing offers superior performance and cleanliness, helping customers achieve product integrity and patient safety.

FEATURES & BENEFITS

- Silicone-free manufacturing process to avoid cross-contamination and improve product quality
- Heat-resistance up to 450°F, ensuring durability and minimizing the need for frequent replacements
- Enhanced surface lubricity and anti-adhesive properties to ensure effortless installation, facilitate easy removal, and extend component lifespan without contamination
- Customizable sizes to tailor our solutions to your needs
- Exceptional transparency for clear visibility of medical components and unobstructed light transmission during procedures
- Low longitudinal shrinkage to avoid constraining ends

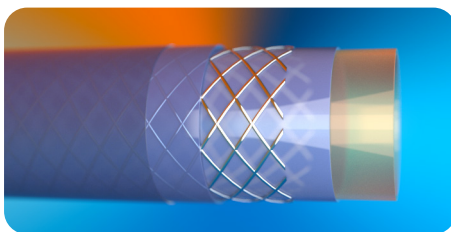
APPLICATIONS

SPECIFICATIONS

- Standard shrinkage ratios of 1.3 to 1 and 1.6 to 1, custom up to 1.8 to 1
- Maximum expanded ID: 0.400" (10.16 mm)
- Recovered ID range: 0.020" - 0.300" (0.51 mm - 7.62 mm)
- Recovered wall thickness: 0.0025" - 0.015" (0.064 mm - 0.381 mm)
- Longitudinal shrinkage: typically <5%
- Length of tubing: up to 102" (259 cm)
- Sterilization: suitable for EtOH and Autoclave

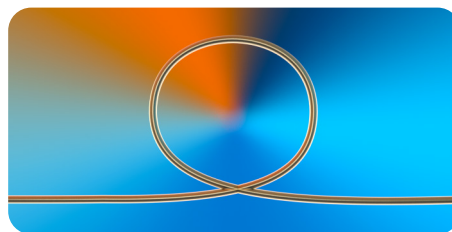
MATERIAL PROCESS SPECIFICATIONS

- Shrink temperature: 410°F ± 50°F (210°C ± 28°C)
- Melting point: 500°F (260°C)



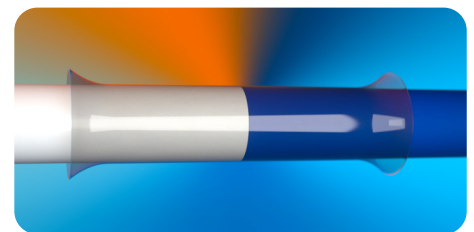
Reflow

Uniform shrinkage ensures consistent catheter manufacturing with easy removal.



Encapsulation/Insulation

Ideal for wire management and abrasion, chemical resistance and good dielectric strength, and thermal resistance in challenging environments.



Bonding

Ensures a uniform transition between components during thermal bonding.

Heat Shrink Tubing

PROPERTIES

FEP HEAT SHRINK TUBING SPECIFICATIONS	VALUE
General Specifications	
Chemical/ Solvent Resistance	Excellent
Density	2.15 g/cc
Water Absorption	<0.003%
Refractive Index	1.338
Mechanical Specifications	
Tensile Strength	23 Mpa
Young's Modulus	0.44-0.64 GPa
Flexural Modulus	0.58 GPa
Hardness Durometer	55 Shore D
Coefficient of Friction	0.05 (On Steel)
Thermal Specifications	
Melting Point	260 °C (500°F)
Glass Transition Temperature	80 °C (176°F)
Upper Service Temperature	204 °C (399.2°F)
Thermal Conductivity	0.19-0.25 W/m-K
Linear Coefficient of Thermal Expansion	8.3-10.5 x 10 ⁻⁵ °C
Electrical Specifications	
Dielectric Constant	2.1 MHz
Dielectric Strength	>1400 V/Mil
Volume Resistivity	>10 ¹⁸ ohm-cm
Surface Resistivity	>10 ¹⁷ ohm/sq

FEP HEAT SHRINK DIMENSIONS						
Part Number	Expanded ID (min)	Recovered ID (max)	Wall Thickness	Shrink Ratio	Length	Webstore Link
WS005006	0.052"	0.032"	0.009" +/- 0.002	1.6:1	60"	WS005006 Nordson MEDICAL
WS005004	0.098"	0.070"	0.009" +/- 0.002	1.4:1	60"	WS005004 Nordson MEDICAL
WS005008	0.125"	0.073"	0.012" +/- 0.003	1.7:1	60"	WS005008 Nordson MEDICAL
WS005005	0.150"	0.094"	0.010" +/-0.003	1.6:1	60"	WS005005 Nordson MEDICAL
WS005007	0.188"	0.115"	0.010" +/-0.002	1.6:1	60"	WS005007 Nordson MEDICAL
WS005003	0.240"	0.150"	0.010" +/-0.002	1.6:1	60"	WS005003 Nordson MEDICAL
WS005001	0.300"	0.187"	0.013" +/-0.002	1.6:1	60"	WS005001 Nordson MEDICAL
WS005002	0.400"	0.250"	0.015" +/-0.002	1.6:1	60"	WS005002 Nordson MEDICAL