

FEP 1.3:1 Heat Shrink Tubing

FEP HEAT SHRINK TUBING

FEP heat shrink tubing is an ideal solution for applications which require protection against high temperatures and chemical resistance. Sold in its expanded state, FEP heat shrink tubing shrinks to its original size when heat is applied, forming a tight jacket over the substrate material. Commonly used to protect sensors, rollers, and wires, FEP heat shrink tubing is offered in a variety of standard sizes and configurations. Like traditional FEP tubing, heat shrink FEP is highly resistant to aggressive chemicals. It is available in continuous or cut lengths with a shrink ratio of 1.3:1. In addition, custom products that meet specific size, tolerance and color specifications can also be created.

[Contact us](#) to discuss custom solutions with our Applications Engineering team or request a quote from our Customer Service team.

Typical Applications

- Temperature sensors and probe encapsulation
- Automotive sensor protection
- Wires and cables insulation

Features and Benefits

- Shrink ratio up to 1.6:1
- Standard and custom sizes, diameters and wall thicknesses available
- Highly resistant to aggressive chemicals
- Working temperature up to +200°C (+392°F)
- Shrink temperature: >215°C
- Excellent electrical insulation properties
- Easily applied to a variety of substrates



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FEP Heat Shrink Tubing Ratio 1.3:1 Fractional Sizes

Normal Size		Expanded I.D. Minimum		Recovered I.D. Maximum		Recovered Wall Thickness	
in.	mm	in.	mm	in.	mm	in.	mm
3/8	9.525	.500	12.7	.383	9.73	.015	0.381
7/16	11.11	.580	14.73	.448	11.38	.020	0.508
1/2	12.7	.666	16.92	.510	12.95	.020	0.508
5/8	15.875	.830	21.08	.637	16.18	.025	0.635
3/4	19.05	1.000	25.4	.764	19.41	.030	0.762
7/8	22.225	1.170	29.72	.891	22.63	.035	0.889

Recovered wall thickness tolerances are dependent on numerous application factors, such as shrinkage rate and shrunk ID. If you should need further clarification on these tolerances, please contact us to discuss your application in detail.

Additional sizes and colors are available upon request.

FEP Heat Shrink Tubing Ratio 1.3:1 AWG Sizes

Gauge Size	Expanded I.D. Minimum		Recovered I.D. Maximum		Recovered Wall Thickness	
	in.	mm	in.	mm	in.	mm
8	.180	4.57	.143	3.63	.010	0.254
7	.197	5	.158	4.01	.011	0.279
6	.225	5.72	.180	4.57	.011	0.279
5	.248	6.3	.198	5.03	.011	0.279
4	.290	7.37	.226	5.74	.011	0.279
3	.310	7.87	.249	6.32	.011	0.279
2	.365	9.27	.280	7.11	.012	0.305
1	.400	10.16	.311	7.9	.012	0.305

Typical Physical Properties of Fluorinated Ethylene Propylene (FEP)

Property	ASTM Method	Value
Maximum Recommended Operating Temperature, °C (°F)	—	Working temperature up to +200 (+392)
Minimum Recommended Operating Temperature, °C (°F)	—	-200 (-328)
Shrink Temperature, °C (°F)	—	+215 (+420)
Water Absorption, (%)	D570	< 0.1
Dielectric Strength in kV/mm	D149	13 to 100*
Thermal Conductivity at 25°C (77 °F), W/m-K	C177	0.2
Color	—	Translucent
Flammability	UL 94	V0

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 pressure, 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.

* Thickness from 0.025 to 2.5 mm - value decreases with increasing thickness. Unless otherwise noted, all tests were conducted at room temperature 73°F. All values refer to special technical literature.



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NOTE: The data and details given in this document are correct and up to date. This document is intended to provide information about the product and possible applications. This document is not the product specification and does not provide specific features, nor does it guarantee product performance in specific applications. Saint-Gobain cannot anticipate or control the conditions of the field and for this reason strongly recommends that practical tests are conducted to ensure that the product meets the requirements of a specific application.