

Heat Shrink Fluoropolymer Tube

Heatshrink tubing offers a unique combination of properties in its tubing, including outstanding electrical characteristics; excellent chemical and solvent resistances; purity; lubricity and outstanding performance reliability.



We have mastered the art of manufacturing fluoropolymer heat shrink tubing and can supply it with recovered walls as thin as .002". Please contact a Yozone representative to learn more about customer sizes, packaging, lengths and colors.

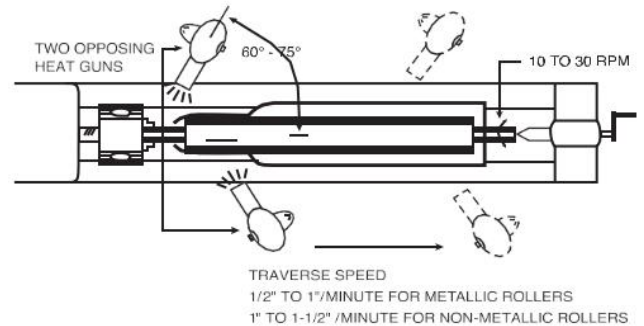
Heat Shrink Application Tips

1. Always assure good ventilation in the immediate work area prior to beginning the heat shrinking process.

Caution: Fumes may cause nausea and dizziness.

2. The mandrel to be covered by the heat shrink must be able to withstand the required temperature for material recovery (see table at right).
3. The mandrel being covered may act as a heat sink (especially metal mandrels). Therefore, we recommends preheating mandrels.
4. Heat shrink should be allowed to recover a minimum of 20%. Highly restricted radial recovery tends to induce longitudinal change and increase the tendency for splitting.

TOP VIEW - ROLLER IN LATHE



SAME PROCEDURE APPLIES FOR MANUAL ROTATION

5. Ovens are the most reliable way to recover heat shrink products due to their ability to ensure even heating and reduce the risk of over heating the material which can lead to brittleness and cracking. If a heat gun will be used please refer to the picture above illustrating the proper application of heat to achieve the most uniform recovery.
6. See Chart for recovery temperatures.

HEAT SHRINK RECOVERY TEMPERATURE	
Material	Recovery Temperature
PTFE	654°F - 670°F 346°C - 354°C
FEP (1" ID or less)	400°F - 420°F 204°C - 216°C
FEP (1" ID or greater)	420°F - 440°F 216°C - 227°C

The heat shrink temperatures listed in this catalog are general guidelines. Actual shrink temperatures may be higher or lower depending on the design and dimensions of the heat shrink, application techniques and other factors. Please contact our Technical Account Manager for more information.



FEP Heat Shrink

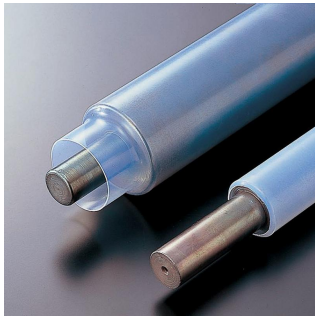
1.3 to 1 Shrink Ratio

Dimensions (inches)

Ordered as AWG Size	As Supplied Inside Diameter Min.	RECOVERED – AFTER HEAT SHRINK			
		I.D. Will Shrink to at Least	Min.	Wall Thickness Nom. Max.	
24	0.031	0.027	0.006	0.008	0.010
22	0.036	0.032	0.006	0.008	0.010
20	0.045	0.039	0.006	0.008	0.010
18	0.060	0.049	0.006	0.008	0.010
16	0.075	0.061	0.007	0.009	0.011
14	0.092	0.072	0.007	0.009	0.011
12	0.115	0.089	0.007	0.009	0.011
10	0.141	0.114	0.007	0.010	0.013
9	0.158	0.124	0.007	0.010	0.013
8	0.180	0.143	0.007	0.010	0.013
7	0.197	0.158	0.007	0.011	0.015
6	0.225	0.180	0.007	0.011	0.015
5	0.248	0.198	0.007	0.011	0.015
4	0.290	0.226	0.007	0.011	0.015
3	0.310	0.249	0.007	0.011	0.015
2	0.365	0.280	0.008	0.012	0.016
1	0.400	0.311	0.008	0.012	0.016
0	0.440	0.349	0.008	0.012	0.016

Fractional Inch (decimal) Tubing

Size	As Supplied Inside Diameter Min.	RECOVERED – AFTER HEAT SHRINK			
		I.D. Will Shrink to at Least	Min.	Wall Thickness Nom. Max.	
3/8 (0.375)	0.500	0.383	0.011	0.015	0.019
7/16 (0.438)	0.580	0.448	0.016	0.020	0.024
1/2 (0.500)	0.666	0.510	0.016	0.020	0.024
5/8 (0.625)	0.830	0.637	0.021	0.025	0.029
3/4 (0.750)	1.000	0.764	0.026	0.030	0.034
7/8 (0.875)	1.170	0.891	0.031	0.035	0.039
1 (1.000)	1.330	1.020	0.031	0.035	0.039
1-1/8 (1.125)	1.500	1.145	0.031	0.035	0.039
1-1/4 (1.250)	1.666	1.270	0.031	0.035	0.039
1-3/8 (1.375)	1.833	1.390	0.031	0.035	0.039
1-1/2 (1.500)	2.000	1.570	0.031	0.035	0.039



FEP Heat Shrink

1.3 to 1 Shrink Ratio

Metric Dimensions (mm)

Ordered as AWG Size	As Supplied Inside Diameter Min.	RECOVERED – AFTER HEAT SHRINK			
		I.D. Will Shrink to at Least	Min.	Wall Thickness Nom. Max.	
24	0.79	0.69	0.15	0.20	0.25
22	0.91	0.81	0.15	0.20	0.25
20	1.14	0.99	0.15	0.20	0.25
18	1.52	1.25	0.15	0.20	0.25
16	1.91	1.55	0.18	0.23	0.28
14	2.34	1.83	0.18	0.23	0.28
12	2.92	2.26	0.18	0.23	0.28
10	3.58	2.90	0.18	0.25	0.33
9	4.01	3.15	0.18	0.25	0.33
8	4.57	3.63	0.18	0.25	0.33
7	5.00	4.01	0.18	0.28	0.38
6	5.72	4.57	0.18	0.28	0.38
5	6.30	5.03	0.18	0.28	0.38
4	7.37	5.74	0.18	0.28	0.38
3	7.87	6.32	0.18	0.28	0.38
2	9.27	7.11	0.20	0.30	0.41
1	10.16	7.90	0.20	0.30	0.41
0	11.18	8.86	0.20	0.30	0.41

Fractional Inch (mm) Tubing

Size	As Supplied Inside Diameter Min.	RECOVERED – AFTER HEAT SHRINK			
		I.D. Will Shrink to at Least	Min.	Wall Thickness Nom. Max.	
3/8 (9.53)	12.70	9.73	0.28	0.38	0.48
7/16 (11.13)	14.73	11.38	0.41	0.51	0.61
1/2 (12.70)	16.92	12.95	0.41	0.51	0.61
5/8 (15.88)	21.08	16.18	0.53	0.64	0.74
3/4 (19.05)	25.40	19.41	0.66	0.76	0.86
7/8 (22.23)	29.72	22.63	0.79	0.89	0.99
1 (25.40)	33.78	25.91	0.79	0.89	0.99
1-1/8 (28.58)	38.10	29.08	0.79	0.89	0.99
1-1/4 (31.75)	42.32	32.26	0.79	0.89	0.99
1-3/8 (34.93)	46.56	35.31	0.79	0.89	0.99
1-1/2 (38.10)	50.80	39.88	0.79	0.89	0.99



FEP Heat Shrink

1.6 to 1 Shrink Ratio

Dimensions (inches)

Fractional	Size		Expanded I.D. Minimum	Recovered I.D. Maximum	Wall Thickness	
	Decimal				Nom.	Tol.
3/32		0.093	0.093	0.056	0.008	±0.003
1/8		0.125	0.125	0.075	0.010	±0.003
3/16		0.188	0.188	0.115	0.010	±0.003
1/4		0.250	0.250	0.150	0.010	±0.003
3/8		0.375	0.375	0.225	0.012	±0.003
1/2		0.500	0.500	0.300	0.015	±0.004
3/4		0.750	0.750	0.450	0.020	±0.004
1		1.000	1.000	0.600	0.025	±0.005
1-1/2		1.500	1.500	0.900	0.030	±0.005
2		2.000	2.000	1.200	0.030	±0.005

Metric Dimensions (mm)

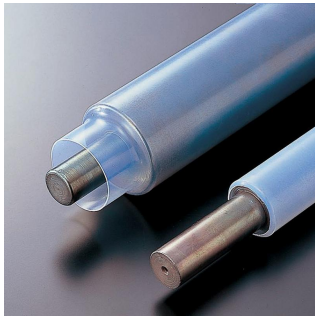
Fractional	Size		Expanded I.D. Minimum	Recovered I.D. Maximum	Wall Thickness	
	mm				Nom.	Tol.
3/32		2.36	2.36	1.42	0.20	±0.08
1/8		3.18	3.18	1.91	0.25	±0.08
3/16		4.78	4.78	2.92	0.25	±0.08
1/4		6.35	6.35	3.81	0.25	±0.08
3/8		9.53	9.53	5.72	0.31	±0.08
1/2		12.70	12.70	7.62	0.38	±0.10
3/4		19.05	19.05	11.43	0.51	±0.10
1		25.40	25.40	15.24	0.64	±0.13
1-1/2		38.10	38.10	22.86	0.76	±0.13
2		50.80	50.80	30.48	0.76	±0.13

COMPLIES WITH: AMS-DTL-I-23053/11 Class 2

COLOR: Supplied in natural unless otherwise specified. Custom Pantone colors or YOZONE standard colors available on request.

CUT PIECES: QUOTED ON REQUEST

CUSTOM SPECIFICATIONS AND TOLERANCES QUOTED UPON REQUEST



FEP Heat Shrink Roll Cover

Yozone Roll Covers extend the life and reliability of rollers and improve product quality. A brief application of heat molds the cover snugly around the roll, forming a skin-tight, high-strength, impregnable jacket impervious to corrosive chemicals, solvents, acids, shock, abrasion, high temperatures, and moisture. They eliminate sticky build-up problems. With the use of a convenient heat source, such as a hot air gun, Our Roll Covers can be quickly and easily shrunk onto the rolls. Cleaning can be done with a solvent or reagent.



For the printing, paper, textile, and food packaging industries, and others

- No sticking
- No picking
- Low maintenance
- Flexibility
- Excellent chemical resistance
- Handles delicate materials
- Saves labor costs
- Cuts cleaning time
- High temperature resistance

Dimensions (Inches)

Large Diameter			Small Diameter		
Ordered As Size	To Cover Min.	Roll Dia. Max.	Ordered As Size	To Cover Min.	Roll Dia. Max.
1-1/4	1.0	1.3	1/2	.440	.550
1-1/2	1.4	1.7	5/8	.540	.700
2	1.8	2.1	3/4	.640	.800
2-1/2	2.2	2.6	7/8	.760	.950
3	2.7	3.1	1	.880	1.100
3-1/2	3.2	3.6			
4	3.5	4.2			
5	4.4	5.2			
6	5.4	6.2			
7	6.4	7.2			

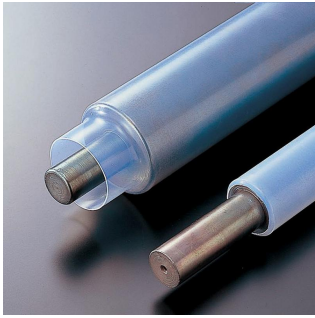
Metric Dimensions (mm)

Large Diameter			Small Diameter		
Ordered As Size	To Cover Min.	Roll Dia. Max.	Ordered As Size	To Cover Min.	Roll Dia. Max.
1-1/4	25.40	33.02	1/2	11.18	13.97
1-1/2	35.56	43.18	5/8	13.72	17.78
2	45.92	53.34	3/4	16.26	20.32
2-1/2	55.88	66.04	7/8	19.30	24.13
3	68.58	78.74	1	22.35	27.94
3-1/2	81.28	91.44			
4	88.90	106.68			
5	111.76	132.08			
6	137.16	157.48			
7	162.56	182.88			

WALL THICKNESS: .020" (.508mm) Nominal

COLOR: Natural. Custom colors available upon request.

Complete technical information provides helpful data to speed production and cut maintenance.

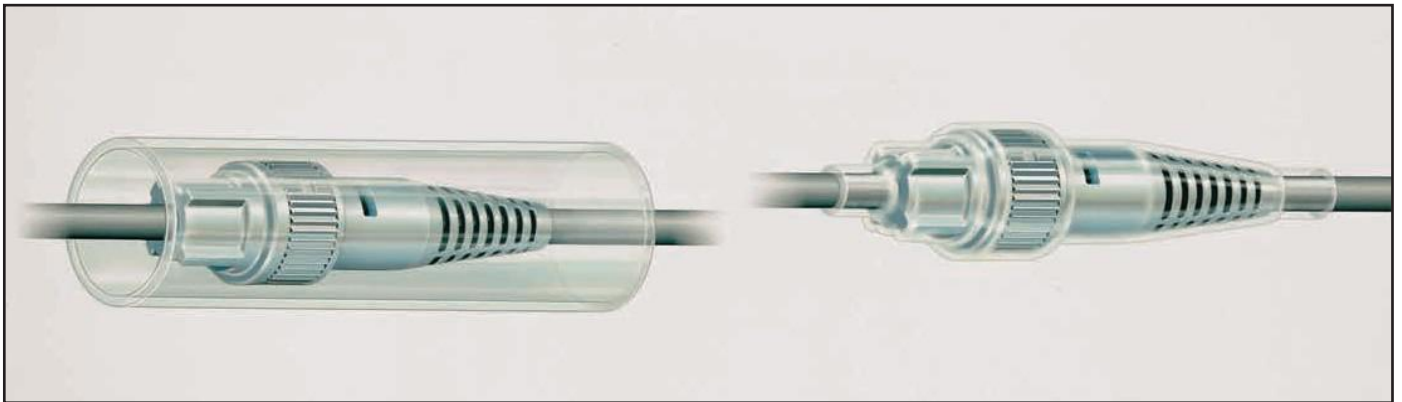


PTFE/FEP

DOUBLE-LAYER Shrink Tube

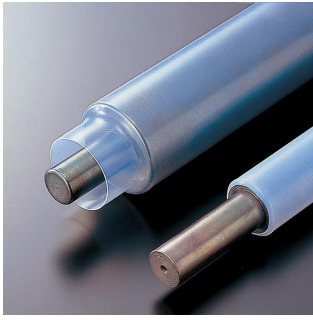
Heat Shrink Tubing Offering a Tight, Moisture-Resistant, Wear-Proof Encapsulation

- n Outer tubing of PTFE shrinks for tight fit when heat is applied.
- n Inner layer of FEP melts and flows to encapsulate parts.



PTFE/FEP heat shrink tube is constructed with an exterior of heat shrink PTFE and an inner layer of FEP. It is easy to apply, and is designed to provide a tight, moisture-proof bond over wires, cables, connectors, splices, terminals, etc. The PTFE shrinks tightly over inserted parts when the covered section is heated, while the FEP melts and flows into a solid or near-

solid encapsulation with a fit so tight that it can withstand the most severe stresses involving pull or vibration. We provides all the outstanding electrical, chemical, and mechanical properties of PTFE including a service temperature up to 450°F/232°C. Custom specifications and tolerances quoted upon request.



PTFE/FEP DOUBLE-LAYER Shrink Tube

Dimensions (inches)

STANDARD WALL				LIGHTWEIGHT WALL			
Item No.	As Supplied I.D. Min.	Recovered Dim. I.D. Will Shrink To at Least	After Shrinking Total Wall Thickness-Norm.	Item No.	As Supplied I.D. Min.	Recovered Dim. I.D. Will Shrink To at Least	After Shrinking Total Wall Thickness-Norm.
ZDS-S-036	0.036	0.000	N/A	ZDS-L-065	0.065	0.000	N/A
ZDS-S-060	0.060	0.000	N/A	ZDS-L-115	0.115	0.045	0.015
ZDS-S-130	0.130	0.000	N/A	ZDS-L-130	0.130	0.060	0.015
ZDS-S-160	0.160	0.000	N/A	ZDS-L-180	0.180	0.065	0.015
ZDS-S-190	0.190	0.062	0.035	ZDS-L-190	0.190	0.070	0.015
ZDS-S-250	0.250	0.125	0.035	ZDS-L-240	0.240	0.150	0.020
ZDS-S-350	0.350	0.190	0.035	ZDS-L-350	0.350	0.210	0.025
ZDS-S-450	0.450	0.312	0.055	ZDS-L-480	0.480	0.315	0.032
ZDS-S-700	0.700	0.440	0.055	ZDS-L-700	0.700	0.500	0.040
ZDS-S-950	0.950	0.630	0.065	ZDS-L-1000	1.000	0.700	0.045

Metric Dimensions (mm)

STANDARD WALL				LIGHTWEIGHT WALL			
Item No.	As Supplied I.D. Min.	Recovered Dim. I.D. Will Shrink To at Least	After Shrinking Total Wall Thickness-Norm.	Item No.	As Supplied I.D. Min.	Recovered Dim. I.D. Will Shrink To at Least	After Shrinking Total Wall Thickness-Norm.
ZDS-S-036	0.91	0.000	N/A	ZDS-L-065	1.65	0.000	N/A
ZDS-S-060	1.52	0.000	N/A	ZDS-L-115	2.92	1.14	0.38
ZDS-S-130	3.30	0.000	N/A	ZDS-L-130	3.30	1.52	0.38
ZDS-S-160	4.06	0.000	N/A	ZDS-L-180	4.57	1.65	0.38
ZDS-S-190	4.83	1.57	0.89	ZDS-L-190	4.83	1.78	0.38
ZDS-S-250	6.35	3.18	0.89	ZDS-L-240	6.10	3.81	0.51
ZDS-S-350	8.89	4.83	0.89	ZDS-L-350	8.89	5.33	0.64
ZDS-S-450	11.43	7.92	1.40	ZDS-L-480	12.19	8.00	0.81
ZDS-S-700	17.78	11.18	1.40	ZDS-L-700	17.78	12.70	1.02
ZDS-S-950	24.13	16.00	1.65	ZDS-L-1000	25.40	17.78	1.14

PACKAGING: Standard 4ft lengths, unless otherwise specified.