



PTFE Fluoropolymer Sleeving & Tubing

PTFE “Spaghetti” Tubing

PTFE fluoropolymer tubing by ATLANTIC TUBING has a combination of electrical, chemical, mechanical, and thermal properties unmatched by any other material. It is regarded as the ultimate in heat resistance (upper service temperature of 500°F), is chemically resistant to most chemicals and solvents, is VW-1 rated, and has constant dielectric properties at all frequencies. Atlantic’s strict quality control (ISO 9002 certified) assures tight tolerances and excellent concentricity. Offered in various wall thicknesses, sizes, and colors, PTFE tubing is called upon to meet a wide range of commercial and military sleeving requirements. APPLICATION: Transformers, aircraft, automotive, electronic assembly, plenum, etc.

AWG Size	I.D. Nom.	I.D. Min.	I.D. Max.	Heavy		STD		Thin		Light		Standard Package
				ATC Part Number	Wall Nom.	ATC Part Number	Wall Nom.	ATC Part Number	Wall Nom.	ATC Part Number	Wall Nom.	
32	.010							TFT 32	.007 ±.002	TFL 32	.006 ±.002	1000 ft. spool
31	.011									TFL 31	.006 ±.002	1000 ft. spool
30	.012	.010	.015			TFS 30	.009 ±.002	TFT 30	.009 ±.002	TFL 30	.006 ±.002	1000 ft. spool
28	.015	.013	.019			TFS 28	.009 ±.002	TFT 28	.009 ±.002	TFL 28	.006 ±.002	1000 ft. spool
26	.018	.016	.022			TFS 26	.009 ±.002	TFT 26	.009 ±.002	TFL 26	.006 ±.002	1000 ft. spool
24	.022	.020	.027	TFH 24	.016 ±.003	TFS 24	.012 ±.002	TFT 24	.010 ±.003	TFL 24	.006 ±.002	1000 ft. spool
23	.026	.023	.029			TFS 23	.012 ±.002	TFT 23	.010 ±.003	TFL 23	.006 ±.002	1000 ft. spool
22	.028	.025	.032	TFH 22	.016 ±.003	TFS 22	.012 ±.002	TFT 22	.010 ±.003	TFL 22	.006 ±.002	1000 ft. spool
21	.032	.029	.035			TFS 21	.012 ±.003	TFT 21	.010 ±.003	TFL 21	.006 ±.002	1000 ft. spool
20	.034	.032	.040	TFH 20	.018 ±.003	TFS 20	.016 ±.003	TFT 20	.012 ±.003	TFL 20	.006 ±.002	1000 ft. spool
19	.038	.036	.044	TFH 19	.020 ±.004	TFS 19	.016 ±.003	TFT 19	.012 ±.003	TFL 19	.006 ±.002	1000 ft. spool
18	.042	.040	.049	TFH 18	.020 ±.004	TFS 18	.016 ±.003	TFT 18	.012 ±.003	TFL 18	.006 ±.002	1000 ft. spool
17	.048	.045	.054	TFH 17	.020 ±.004	TFS 17	.016 ±.003	TFT 17	.012 ±.003	TFL 17	.006 ±.002	1000 ft. spool
16	.053	.051	.061	TFH 16	.020 ±.004	TFS 16	.016 ±.003	TFT 16	.012 ±.003	TFL 16	.006 ±.002	1000 ft. spool
15	.059	.057	.067	TFH 15	.020 ±.004	TFS 15	.016 ±.003	TFT 15	.012 ±.003	TFL 15	.006 ±.002	1000 ft. spool
14	.066	.064	.074	TFH 14	.020 ±.004	TFS 14	.016 ±.003	TFT 14	.012 ±.003	TFL 14	.008 ±.002	500 ft. spool
13	.076	.072	.082	TFH 13	.020 ±.004	TFS 13	.016 ±.003	TFT 13	.012 ±.003	TFL 13	.008 ±.002	500 ft. spool
12	.085	.081	.091	TFH 12	.020 ±.004	TFS 12	.016 ±.003	TFT 12	.012 ±.003	TFL 12	.008 ±.002	500 ft. spool
11	.095	.091	.101	TFH 11	.020 ±.004	TFS 11	.016 ±.003	TFT 11	.012 ±.003	TFL 11	.008 ±.002	500 ft. spool
10	.106	.102	.112	TFH 10	.025 ±.005	TFS 10	.016 ±.003	TFT 10	.012 ±.003	TFL 10	.008 ±.002	500 ft. spool
9	.118	.114	.124	TFH 9	.025 ±.005	TFS 9	.020 ±.004	TFT 9	.015 ±.003	TFL 9	.008 ±.002	500 ft. spool
8	.133	.129	.141	TFH 8	.030 ±.005	TFS 8	.020 ±.004	TFT 8	.015 ±.003	TFL 8	.008 ±.002	Random Coils
7	.148	.144	.158	TFH 7	.030 ±.005	TFS 7	.020 ±.004	TFT 7	.015 ±.003	TFL 7	.008 ±.003	Random Coils
6	.166	.162	.178	TFH 6	.030 ±.005	TFS 6	.020 ±.004	TFT 6	.015 ±.003	TFL 6	.010 ±.003	Random Coils
5	.185	.182	.198	TFH 5	.032 ±.005	TFS 5	.020 ±.004	TFT 5	.015 ±.003	TFL 5	.010 ±.003	Random Coils
4	.208	.204	.224			TFS 4	.020 ±.004	TFT 4	.015 ±.003	TFL 4	.010 ±.003	Random Coils
3	.234	.229	.249			TFS 3	.020 ±.004	TFT 3	.015 ±.003	TFL 3	.010 ±.003	Random Coils
2	.263	.258	.278			TFS 2	.020 ±.004	TFT 2	.015 ±.003	TFL 2	.010 ±.003	Random Coils
1	.294	.289	.311			TFS 1	.020 ±.004	TFT 1	.015 ±.003	TFL 1	.010 ±.003	Random Coils
0	.330	.325	.347			TFS 0	.020 ±.004	TFT 0	.015 ±.003	TFL 0	.012 ±.003	Random Coils

MATERIAL: 100% virgin PTFE resin
COLORS: Natural, Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White
SERVICES: Precision Cutting is available to provide clean, square ends at tight tolerances. Etching is available for those applications that require bonding. Striping is available for identification needs requiring more than natural and ten basic colors

SPECIFICATIONS:

- ASTM D3295 Classes A, B, C, D, E,
- Mil-I-22129
- AMS 3653, 3654, 3655

ATLANTIC TUBING’s products comply with UL-224, is VW-1 rated, and has been assigned UL file number E76209 and is listed under the UL Recognized Component Program, and is CSA certified.





Fluoropolymer PTFE & FEP Tubing Insulation Products

Fluoropolymer PTFE and FEP tubing from ATLANTIC TUBING satisfies the most demanding needs for electrical insulation sleeving and tubing products. We are ISO 9002 certified and meet industry related specifications including UL, CSA, MIL, AMS and ASTM. For high temperature, chemical and abrasion resistance, VW-1 rating, and high dielectric, fluoropolymer tubing products by ATLANTIC TUBING meets the challenge!

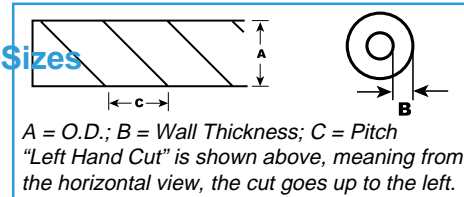
Typical Resin Properties	Test Method	Units Of Measure	PTFE	FEP
Cont. Use Temp. Range	--	°F	-400°F to 500°F	-400°F to 400°F
Melting Point	ASTM D4591	°F	621°F	520°F
Specific Gravity	ASTM D792	--	2.13 - 2.24	2.15
Dielectric Strength	ASTM D149	V/mil	>1250	>1250
Short time, 0.25mm (0.010in.)				
Dielectric Constant, 60-10 ⁶ Hz	ASTM D150	--	2.1	2.1
Volume Resistivity	ASTM D257	Ohm-cm	>10 ¹⁸	>10 ¹⁸
Tensile Strength @73°F	ASTM D638	psi	3000-5000	3500
Ultimate Elongation @73°F	ASTM D1708	%	200-400	300
Coefficient of Friction	ASTM D1894	<3m/min	0.1	0.2
Flexural Modulus @73°F	ASTM D790	psi	50-90,000	90,000
zod Impact Strength	ASTM D256	Ft-lb/in.	3.5	No Break
Hardness, Durometer	ASTM D2240	Shore D	50-65	55
Flammability	UL94	--	VW-1	VW-1
Water Absorption (24 Hours)	ASTM D570	%	<.01	.004
FDA Recognition	--	--	Yes	Yes
Chemical Resistance	--	--	Excellent	Excellent
Weather Resistance	ASTM D1435	--	Excellent	Excellent
Appearance	--	--	Translucent	Translucent

Spiral Wrap

ATLANTIC TUBING has long been a leading supplier of PTFE spiral wrap (cable harness). This product has a “VO” flammability rating and is excellent for bundling cables in plenum areas. This harness is durable, flexible, and has outstanding electrical properties. More important, it allows the user to “breakout” leads along the length of the harness, making it suitable for custom installations or areas requiring frequent change. ATLANTIC offers spiral wrap in both left and right hand cut to suit your particular installation. It comes in natural and ten (10) vivid colors, perfect for color coding and identification. Ideal applications include wiring closets, station wiring, fibre optic cables, aerospace, and automotive.

ATC Part Number	O.D	O.D Tol.	Wall	Wall Tol.	Pitch	Pitch Tol.	Stock	Pkg.
TSW 1/8	.125	+/- .005	.020	+/- .008	.218	+/- .015	500FT	Spools
TSW 3/16	.188	+/- .005	.030	+/- .008	.312	+/- .015	100/500FT	Spools
TSW 1/4	.250	+/- .005	.030	+/- .008	.375	+/- .015	100/500FT	Spools
TSW 3/8	.375	+/- .005	.030	+/- .008	.43-7	+/- .015	100/500FT	Spools
TSW 1/2	.500	+/- .006	.030	+/- .008	.562	+/- .015	100/500FT	Spools
TSW 3/4	.750	+/- .007	.040	+/- .008	.875	+/- .015	100/250FT	Spools
TSW 1.00	1.000	+/- .010	.040	+/- .008	1.000	+/- .015	100FT	Spools

PTFE: Spiral Wrap Sizes



Convolute Tubing

For chemically harsh or wet environments, ATLANTIC’s convoluted products more than meet the challenge. The “convoluted” tubing has all the properties of standard PTFE tubing in addition to higher flexibility that allows it to go around corners and bends without kinking. It is available with “cuffed” ends that work with most industry fittings to provide a sealed environment. A color stripe is also available for easy identification.

PTFE: Convolute Sizes

ATC Part Number	Cuff Dim. I.D. X O.D.	Stock Cuff Length	Convol. Dim. Min. I.D X Max. O.D.	Pitch (Turns/Inch)	Max Wall Thick	Bend Radius	Stock Packaging
TCONV 1/4	.250 x .280	3/4	.181 x .320	8	.023	1/2	Random Coils
TCONV 5/16	.312 x .342	1	.273 x .414	7-1/2	.027	3/4	Random Coils
TCONV 3/8	.375 x .415	1	.303 x .450	7-1/2	.027	7/8	Random Coils
TCONV 1/2	.500 x .540	1	.425 x .590	7	.029	1-1/4	Random Coils
TCONV 5/8	.625 x .673	1-1/4	.485 x .660	7	.029	1-1/2	Random Coils
TCONV 3/4	.750 x .800	1-1/2	.608 x .780	7	.035	1-3/4	Random Coils
TCONV 1.00	1.000 x 1.060	2	0.850 x 1.100	6	.035	2-1/4	Random Coils
TCONV 1-1/4	1.250 x 1.320	2-1/2	1.105 x 1.390	4-1/2	.035	2-3/4	Random Coils
TCONV 1-1/2	1.500 x 1.580	2-1/2	1.210 x 1.539	4	.035	3	Random Coils
TCONV 2.00	2.000 x 2.080	2-1/2	1.690 x 2.100	4	.045	4-1/4	Random Coils





Heat Shrinkable Fluoropolymer PTFE & FEP Tubing

ATLANTIC TUBING's Heat Shrinkable Fluoropolymer tubing is now available in both PTFE and FEP resins. Both materials offer high temperature resistance (see properties chart on previous page), excellent dielectric strength, abrasion resistance, non-flammable, VW-1 rated, and are chemically inert. PTFE heat shrinkable is available in 2:1 shrink ratio, and FEP is available in 1.3:1 shrink ratio. Custom sizes and shrink ratios are available. Heat shrinkable PTFE tubing is available in natural and ten (10) standard colors, while FEP is offered in 2 standard colors: natural and black. Non-stock colors are available upon request. ATLANTIC TUBING's fluoropolymer heat shrinkable tubing meets MIL-I-23053 Class 11 and 12.

FEP Heat Shrinkable Tubing, 1.3:1 Ratio

ATC Part Number	Size	I.D.	Min. Exp.	Max Rec.	Rec. Wall
HS1.3FEP 24	24	.034	.031	.027	.008
HS1.3FEP 22	22	.040	.036	.032	.008
HS1.3FEP 20	20	.049	.045	.039	.008
HS1.3FEP 18	18	.066	.060	.049	.008
HS1.3FEP 16	16	.082	.075	.061	.009
HS1.3FEP 14	14	.101	.092	.072	.009
HS1.3FEP 12	12	.126	.115	.089	.009
HS1.3FEP 11	11	.140	.128	.101	.010
HS1.3FEP 10	10	.155	.141	.114	.010
HS1.3FEP 9	9	.174	.158	.124	.010
HS1.3FEP 8	8	.198	.180	.143	.010
HS1.3FEP 7	7	.217	.197	.158	.011
HS1.3FEP 6	6	.247	.225	.180	.011
HS1.3FEP 5	5	.260	.248	.198	.011
HS1.3FEP 4	4	.305	.290	.226	.011
HS1.3FEP 3	3	.325	.310	.249	.011
HS1.3FEP 2	2	.383	.365	.280	.012
HS1.3FEP 1	1	.420	.400	.311	.012
HS1.3FEP 0	0	.462	.440	.349	.012

Fractional Sizes Also Available MIL-I-23053/11

PTFE Heat Shrinkable Tubing, 2:1 Ratio

AWG	ATC Part Number	Min Exp. I.D.	Max Rec. I.D.	Nom Rec. Wall	ATC Part Number	Min Exp. I.D.	Max Rec. I.D.	Nom Rec. Wall	ATC Part Number	Min Exp. I.D.	Max Rec. I.D.	Nom Rec. Wall
30	HS2TFS 30	.034	.015	.009	HS2TFT 30	.034	.015	.009	HS2TFL 30	.034	.015	.006
28	HS2TFS 28	.038	.018	.009	HS2TFT 28	.038	.018	.009	HS2TFL 28	.038	.018	.006
26	HS2TFS 26	.046	.022	.009	HS2TFT 26	.046	.022	.010	HS2TFL 26	.046	.022	.006
24	HS2TFS 24	.050	.027	.012	HS2TFT 24	.050	.027	.010	HS2TFL 24	.050	.025	.006
22	HS2TFS 22	.055	.032	.012	HS2TFT 22	.055	.032	.012	HS2TFL 22	.055	.031	.006
20	HS2TFS 20	.060	.039	.016	HS2TFT 20	.060	.039	.012	HS2TFL 20	.060	.038	.006
19	HS2TFS 19	.065	.043	.016	HS2TFT 19	.065	.043	.012	HS2TFL 19	.065	.043	.006
18	HS2TFS 18	.076	.049	.016	HS2TFT 18	.076	.049	.012	HS2TFL 18	.076	.046	.006
17	HS2TFS 17	.085	.054	.016	HS2TFT 17	.085	.054	.012	HS2TFL 17	.085	.054	.006
16	HS2TFS 16	.093	.061	.016	HS2TFT 16	.093	.061	.012	HS2TFL 16	.093	.057	.006
15	HS2TFS 15	.110	.067	.016	HS2TFT 15	.110	.067	.012	HS2TFL 15	.110	.063	.006
14	HS2TFS 14	.120	.072	.016	HS2TFT 14	.120	.072	.012	HS2TFL 14	.120	.072	.008
13	HS2TFS 13	.140	.080	.016	HS2TFT 13	.140	.080	.012	HS2TFL 13	.140	.080	.008
12	HS2TFS 12	.150	.089	.016	HS2TFT 12	.150	.089	.012	HS2TFL 12	.150	.089	.008
11	HS2TFS 11	.170	.101	.016	HS2TFT 11	.170	.101	.012	HS2TFL 11	.170	.099	.008
10	HS2TFS 10	.191	.112	.016	HS2TFT 10	.191	.112	.012	HS2TFL 10	.191	.110	.008
9	HS2TFS 9	.205	.124	.020	HS2TFT 9	.205	.124	.015	HS2TFL 9	.205	.122	.008
8	HS2TFS 8	.240	.141	.020	HS2TFT 8	.240	.141	.015	HS2TFL 8	.240	.139	.008
7	HS2TFS 7	.270	.158	.020	HS2TFT 7	.270	.158	.015	HS2TFL 7	.270	.154	.008
6	HS2TFS 6	.302	.178	.020	HS2TFT 6	.302	.178	.015	HS2TFL 6	.302	.172	.010
5	HS2TFS 5	.320	.198	.020	HS2TFT 5	.320	.198	.015	HS2TFL 5	.320	.192	.010
4	HS2TFS 4	.370	.224	.020	HS2TFT 4	.370	.224	.015	HS2TFL 4	.370	.214	.010
3	HS2TFS 3	.390	.249	.020	HS2TFT 3	.390	.249	.015	HS2TFL 3	.390	.241	.010
2	HS2TFS 2	.430	.278	.020	HS2TFT 2	.430	.278	.015	HS2TFL 2	.430	.270	.010
1	HS2TFS 1	.450	.311	.020	HS2TFT 1	.450	.311	.015	HS2TFL 1	.450	.301	.010
0	HS2TFS 0	.470	.347	.020	HS2TFT 0	.470	.347	.015	HS2TFL 0	.470	.347	.012

Fractional Sizes also available in Standard, Thin, Light & Industrial Walls.

MIL-I-23053/12

