

3M Heat Shrinkable Tubing



MFP®, EPS-300, SFTW202 GYS, SFTW203, 8420 & 8440 Series

MFP Series-Modified Polyvinylidene Fluoride • Shrink Temperature: 175°C (347°F) • Color: Clear • Shrink Ratio: 2:1. Cross-linked, thin-walled tubing offers a high degree of mechanical strength and high temperature resistance. This has outstanding abrasion resistance and cut-through properties in combination with high dielectric strength. It is inherently flame retardant, semi-rigid and highly resistant to most industrial fuels, chemicals and solvents. KYNAR is a registered trademark of Elf Atochem North America, Inc. **EPS-300 Series-Adhesive-Lined Flexible Polyolefin** • Shrink Temperature: 121°C (250°F) • Color: Black • Shrink Ratio: 3:1. Rapidly shrinks to a skintight fit, forcing the melted adhesive to flow and cover the substrate. The adhesive forms a flexible bond with a wide variety of rubbers, plastics and metals. Upon cooling, the adhesive solidifies forming a permanent, non-drying, flexible and water resistant barrier. **SFTW202 GYS Series-Very Flexible Polyolefin** • Shrink Temperature: 100°C (212°F) • Color: Green and yellow striped • Shrink Ratio: 2:1. Meets performance requirements of MIL-I-23053/5 Class 1, and is UL Recognized (File No. E48398) for flame retardance. Can be easily surface painted. **SFTW203 Series-Very Flexible Polyolefin** • Shrink Temperature: 100°C (212°F) • Color: Black • Shrink Ratio: 3:1. Meets performance requirements of MIL-I-23053/5 Class 1, and is UL Recognized (File No. E48398) for flame retardance. Can be easily surface painted. **8420 Series-EPDM and 8440 Series-Silicone Rubber Tubes** • Color: Black (8420 Series) and Gray (8440 Series). Cold Shrink™ Insulators-Open-ended, tubular rubber sleeves that are factory expanded and assembled onto a removable plastic core. Provides a reliable seal without the use of heat, a torch or adhesive - simply position and unwind the core allowing the tube to shrink and form a water-resistant seal.

Tubing Size Diameter± Inches (mm)	Inside Diameter		Nominal Recovered Wall Thick. mm	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length				
	Minimum Expanded mm	Maximum Recovered mm			4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
MFP Series - Modified Polyvinylidene Fluoride									
3/64 (1.19)	1.17	0.58	0.25	KY364C-ND	4.19	7.26	16.06	33.51	55.85
1/16 (1.60)	1.60	0.79	0.25	KY116C-ND	4.30	7.45	16.48	34.39	57.31
3/32 (2.38)	2.36	1.17	0.25	KY332C-ND	4.60	7.97	17.62	36.78	61.30
1/8 (3.18)	3.18	1.57	0.25	KY018C-ND	4.97	8.62	19.06	39.79	66.31
3/16 (4.78)	4.75	2.36	0.25	KY316C-ND	7.01	12.39	26.95	51.73	—
1/4 (6.35)	6.35	3.18	0.30	KY014C-ND	8.65	15.29	33.24	63.83	—
3/8 (9.52)	9.53	4.75	0.30	KY038C-ND	10.41	18.42	40.04	76.88	—
1/2 (12.70)	12.70	6.35	0.30	KY012C-ND	13.82	24.02	48.05	—	—

Tubing Size Dia. ± Inch (mm)	Inside Diameter		Recovered Wall Thickness mm	Melttable mm	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length				
	Minimum Expanded mm	Maximum Recovered mm				4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
EPS-300 Series - Adhesive-lined, Flexible, Polyolefin										
1/8 (3.18)	3.18	1.02	1.02	0.51	EPS3018K-ND	7.61	13.18	29.16	60.87	91.93
3/16 (4.78)	4.75	1.57	1.02	0.51	EPS3316K-ND	7.23	12.78	27.80	51.71	—
1/4 (6.35)	6.35	2.03	1.02	0.51	EPS3014K-ND	8.95	15.83	34.42	64.02	—
3/8 (9.52)	9.53	3.05	1.40	0.62	EPS3038K-ND	10.13	17.92	38.94	72.43	—
1/2 (12.70)	12.70	4.06	1.78	0.76	EPS3012K-ND	11.83	20.93	45.51	84.64	—

Tubing Size Dia. ± Inch (mm)	Inside Diameter		Nominal Recovered Wall Thick. mm	(NOTE: "X" in Part No. Represents Number of Feet)					
	Minimum Expanded mm	Maximum Recovered mm		Digi-Key Part No.	5'	25'	50'	Reel Qty.	Price Per Full Reel
SFTW202 GYS Series - Very Flexible Polyolefin									
1/8 (3.18)	3.18	1.50	0.51	SFTW2018E-X-ND	4.84	19.33	27.71	500	200.12
1/4 (6.35)	6.35	3.00	0.65	SFTW2014E-X-ND	7.40	29.61	42.43	200	122.56
3/8 (9.52)	9.53	4.50	0.76	SFTW2038E-X-ND	8.21	32.85	47.08	200	135.99
1/2 (12.70)	12.70	6.00	0.76	SFTW2012E-X-ND	9.23	36.91	52.90	200	152.79
SFTW203 Series - Very Flexible Polyolefin									
1/16 (1.59)	1.50	0.50	0.45	SFTW2116K-X-ND	1.74	6.95	9.96	1,000	143.82
1/8 (3.18)	3.00	1.00	0.55	SFTW2018K-X-ND	1.98	7.93	11.36	500	82.05
1/4 (6.35)	6.00	2.00	0.65	SFTW2014K-X-ND	3.01	12.03	17.24	200	49.80
3/8 (9.52)	9.00	3.00	0.75	SFTW2038K-X-ND	3.36	13.44	19.26	200	55.63
1/2 (12.70)	12.00	4.00	0.75	SFTW2012K-X-ND	3.79	15.17	21.74	200	62.78

‡ Indicates size BEFORE shrinking occurs.

Diameter Range Inches (mm)	Relaxed Tube Length Inches (mm)	Digi-Key Part No.	Pricing
			1 10
8420 - EPDM Cold Shrink Tubes			
0.31 - 0.56 (7.87 - 14.22)	6.00 (152.40)	8423-6-ND	10.66 97.31
0.10 - 0.82 (2.54 - 20.83)	8.00 (203.20)	8424-8-ND	13.66 124.75
0.40 - 0.82 (10.16 - 20.83)	8.00 (203.20)	8425-8-ND	11.98 109.37
0.55 - 1.18 (13.97 - 29.97)	9.00 (228.60)	8426-9-ND	14.27 130.32
0.55 - 1.18 (13.97 - 29.97)	11.00 (279.40)	8426-11-ND	17.09 156.03
0.67 - 1.38 (17.02 - 35.05)	6.00 (152.40)	8427-6-ND	10.79 98.50
0.67 - 1.38 (17.02 - 35.05)	12.00 (304.80)	8427-12-ND	20.68 188.77
0.67 - 1.38 (17.02 - 35.05)	16.00 (406.40)	8427-16-ND	28.44 259.70
0.95 - 1.94 (24.13 - 49.28)	6.00 (152.40)	8428-6-ND	15.23 139.07
0.95 - 1.94 (24.13 - 49.28)	12.00 (304.80)	8428-12-ND	30.35 277.06
0.95 - 1.94 (24.13 - 49.28)	18.00 (457.20)	8428-18-ND	45.65 416.79
1.27 - 2.67 (32.26 - 67.82)	6.00 (152.40)	8429-6-ND	16.64 151.92
1.27 - 2.67 (32.26 - 67.82)	9.00 (228.60)	8429-9-ND	24.19 220.86
1.27 - 2.67 (32.26 - 67.82)	12.00 (304.80)	8429-12-ND	33.13 302.52
1.27 - 2.67 (32.26 - 67.82)	18.00 (457.20)	8429-18-ND	49.91 455.64
1.68 - 3.69 (42.67 - 93.73)	9.00 (228.60)	8430-9-ND	34.43 314.31
1.68 - 3.69 (42.67 - 93.73)	18.00 (457.20)	8430-18-ND	52.82 482.28
8440 - Silicone Cold Shrink Tubes			
0.27 - 0.56 (6.86 - 14.22)	2.00 (50.80)	8443-2-ND	6.32 57.67
0.27 - 0.56 (6.86 - 14.22)	6.50 (165.10)	8443-6.5-ND	9.03 82.46
0.35 - 0.72 (8.89 - 18.29)	2.50 (63.50)	8445-2.5-ND	6.56 59.92
0.35 - 0.72 (8.89 - 18.29)	7.50 (190.50)	8445-7.5-ND	9.60 87.63
0.48 - 0.95 (12.19 - 24.13)	3.20 (81.28)	8447-3.2-ND	8.04 73.44
0.48 - 0.95 (12.19 - 24.13)	8.00 (203.20)	8447-8-ND	11.91 108.70

EPS-200 and VFP-876 Series

EPS-200 Series • Shrink Temperature: 121°C • Color: Black • Shrink Ratio: 2:1. Rapidly shrinks to a skintight fit, forcing the melted adhesive lining to flow and cover the substrate. The adhesive forms a flexible bond with a wide variety of rubbers, plastics and metals. Upon cooling, the adhesive solidifies forming a permanent, non-drying, flexible and water resistant barrier. Rated for operation at -55°C - 110°C (-67°F - 230°F). **VFP-876 Series-Very Flexible Polyolefin** • Shrink Temperature: 100°C • Color: Black • Shrink Ratio: 2:1. Most flexible of the heat shrinkable, polyolefin tubings. Ideal for jacketing and insulation of flexible wire bundles and sensitive components.

Tubing Size Diameter± Inch (mm)	Inside Diameter		Nominal Recovered Wall Thick. mm	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length				
	Expanded Minimum mm	Recovered Maximum mm			4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
EPS-200 Series - Adhesive-lined, Flexible, Polyolefin									
1/8 (3.18)	3.18	1.60	0.69	EPS2018-ND	4.27	7.39	16.35	34.12	55.10
3/16 (4.76)	4.75	2.36	0.69	EPS2316-ND	4.02	7.11	15.47	28.77	—

Tubing Size Diameter± Inches (mm)	Inside Diameter		Nominal Recovered Wall Thick. mm	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length			
	Minimum Expanded mm	Maximum Recovered mm			4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)
1/4 (6.35)	6.35	3.18	0.76	EPS2014-ND	5.03	8.91	19.36	36.01
3/8 (9.53)	9.52	4.75	0.79	EPS2038-ND	5.67	10.03	21.82	40.58
1/2 (12.70)	12.70	6.35	0.81	EPS2012-ND	6.51	11.53	25.06	46.61
3/4 (19.05)	19.05	9.52	0.94	EPS2034-ND	7.88	13.71	26.56	—
1 (25.40)	25.40	12.70	1.17	EPS2100-ND	11.59	20.15	39.05	—
1-1/2 (38.10)	38.10	19.05	1.24	EPS2112-ND	20.27	35.25	68.31	—
2 (50.80)	50.80	25.40	1.52	EPS2200-ND	28.21	43.73	—	—

Tubing Size Diameter± Inches (mm)	Inside Diameter		Nominal Recovered Wall Thick. mm	Digi-Key Part No.	(NOTE: "X" in Part No. Represents Number of Feet)				
	Minimum Expanded mm	Maximum Recovered mm			5'	25'	50'	100'	200'
VFP-876 Series - Very Flexible Polyolefin, Self-extinguishing									
3/64 (1.19)	1.17	0.58	0.41	VFP364-X-ND	1.63	7.28	13.05	23.49	—
1/16 (1.59)	1.60	0.79	0.43	VFP116-X-ND	1.66	7.43	13.31	23.95	—
3/32 (2.38)	2.36	1.17	0.51	VFP332-X-ND	1.76	7.86	12.66	20.17	—
1/8 (3.18)	3.18	1.57	0.51	VFP018-X-ND	1.89	8.47	13.66	21.74	—
3/16 (4.76)	4.75	2.36	0.51	VFP316-X-ND	2.31	9.24	13.24	23.41	—
1/4 (6.35)	6.35	3.18	0.64	VFP014-X-ND	2.88	11.54	16.53	29.21	47.74
3/8 (9.53)	9.52	4.75	0.64	VFP038-X-ND	3.22	12.88	18.45	32.63	53.31
1/2 (12.70)	12.70	6.35	0.64	VFP012-X-ND	3.63	14.52	20.81	36.79	60.12
3/4 (19.05)	19.05	9.52	0.76	VFP034-X-ND	4.84	19.36	27.75	49.05	80.16
1 (25.40)	25.40	12.70	0.89	VFP100-X-ND	7.24	28.96	41.51	57.10	—
1-1/2 (38.10)	38.10	19.05	1.02	VFP112-X-ND	13.50	53.98	77.36	106.41	—
2 (50.80)	50.80	25.40	1.14	VFP200-X-ND	18.64	74.59	106.90	147.04	—

‡ Indicates size BEFORE shrinking occurs.

Colored Heat Shrinkable Tubing



FP-301 Series

Available in 7 Colors: (K = Black, C = Clear, B = Blue, G = Green, R = Red, W = White, Y = Yellow)

• Shrink Temperature: 121°C • Shrink Ratio: 2:1. Tubing is split resistant, mechanically tough, easily marked and resist cold flow, for UL, CSA and Mil-I-23053/5 applications at 600V @ 125°C.

Tubing Size Diameter± Inches (mm)	Inside Diameter		Nominal Recovered Wall Thick. mm	Digi-Key Part No.	(NOTE: "X" in Part No. Represents Number of Feet)				
	Minimum Expanded mm	Maximum Recovered mm			5'	25'	50'	100'	200'
FP-301 Series - Flexible Polyolefin, Self-extinguishing, Flame Retardant, Color									
3/64 (1.19)	1.17	0.58	0.41	FP364□-X-ND†	1.38	6.18	11.08	19.94	— 39.69
1/16 (1.59)	1.60	0.79	0.43	FP116□-X-ND	1.38	6.18	11.06	19.90	— 39.61
3/32 (2.38)	2.36	1.17	0.51	FP332□-X-ND	1.47	6.54	10.54	16.79	— 37.10
1/8 (3.18)	3.18	1.57	0.51	FP018□-X-ND	1.55	6.91	11.13	17.74	— 39.17
3/16 (4.76)	4.75	2.36	0.51	FP316□-X-ND	1.80	7.22	10.34	18.27	— 40.48
1/4 (6.35)	6.35	3.18	0.64	FP014□-X-ND	2.25	9.02	12.92	22.83	— 40.49
3/8 (9.53)	9.52	4.75	0.64	FP038□-X-ND	2.52	10.06	14.42	25.48	— 45.19
1/2 (12.70)	12.70	6.35	0.64	FP012□-X-ND	3.03	12.09	17.32	30.62	— 50.95
3/4 (19.05)	19.05	9.52	0.76	FP034□-X-ND	4.02	16.11	23.08	40.79	— 67.95
1 (25.40)	25.40	12.70	0.89	FP100□-X-ND	6.02	24.08	34.51	48.34	—
1-1/2 (38.10)	38.10	19.05	1.02	FP112□-X-ND†	9.88	39.54	56.67	90.11	—
2 (50.80)	50.80	25.40	1.14	FP200□-X-ND†	13.66	54.65	78.33	124.54	—

‡ Indicates size BEFORE shrinking occurs. † Not available in green.

Note: For complete number, substitute □ with appropriate color (K = Black, C = Clear, B = Blue, G = Green, R = Red, W = White, Y = Yellow) and substitute "X" with length choice.

FP-CIT-ND Digi-Key® FP-301 Series Kit One 5 foot tubing of each color in the following series: FP364, FP116, FP332, FP018, FP316, FP014, FP038 and FP012 (55 pieces total of 8 sizes)..... **52.24**

Heat Shrink Precut Lengths and Kits



FP-301 Series-Flexible Polyolefin • Shrink Temperature: 121°C • Color: Black • Shrink Ratio:

CWT-900X Series – Solder Sleeve Wire Splices

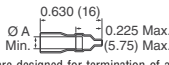
Materials: • **Insulation Sleeve:** Heat-shrinkable, radiation cross-linked modified polyolefin. Transparent clear. • **Solder Preform with Flux:** Solder: Type CD18 per ANSI/J-STD-006 Flux: Type ROM1 per ANSI/J-STD-004 **Application:** These controlled soldering devices are designed to splice tin-plated or bare copper stranded wires rated for at least 85°C. **Temperature Range:** -55°C ~ 125°C



AWG (Color)	Dimensions - Inches (mm)			Digi-Key Part No.	Pricing			Raychem Part No.
	Diameter A Min.	Diameter B Min.	Length - L Max.		10	50	100	
24-20 (Clear)	.065 (1.7)	1.025 (26.0)		CWT9001-ND	7.72	34.57	56.95	CWT-9001
18-16 (Red)	.105 (2.7)	1.655 (42.0)		CWT9002-ND	11.38	50.94	83.90	CWT-9002
16-12 (Blue)	.180 (4.5)	1.655 (42.0)		CWT9003-ND	8.90	39.82	65.59	CWT-9003

CWT-150X Series – Wire Termination to Pin, Post or Tab

Materials: • **Insulation Sleeve:** Heat-shrinkable, transparent clear, radiation cross-linked modified polyolefin. • **Solder Preform with Flux:** Solder: Type Cd18 per ANSI/J-STD-006 Flux: Type ROM1 per ANSI/J-STD-004 **Application:** These controlled soldering devices are designed for termination of a wire to the lead of electrical component or to the terminal of a connector. **Temperature Range:** -55°C ~ 125°C



Diameter A Min.	Dimensions - Inches (mm)		Digi-Key Part No.	Pricing			Raychem Part No.
	Diameter B Min.	Length - L Max.		10	50	100	
.060 (1.5)	.025 (0.6)		CWT1501-ND	7.05	31.54	51.94	CWT-1501
.090 (2.3)	.035 (0.9)		CWT1502-ND	7.38	32.94	54.25	CWT-1502
.110 (2.8)	.045 (1.2)		CWT1503-ND	7.53	33.69	55.50	CWT-1503

Note: Please refer to data sheet for Post or Tab sizes

CWT-X-W122-5 Series – Shield Terminators

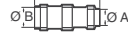
Materials: • **Insulation Sleeve:** Transparent heat-shrinkable radiation cross-linked modified polyolefin. • **Solder Preform with Flux:** Solder: Type Cd18 per ANSI/J-STD-006 Flux: Type ROM1 per ANSI/J-STD-004 • **Ground Lead:** Raychem cross-linked polyethylene wire, AWG22, stranded tin plated copper. • **Color:** Green **Application:** These controlled soldering devices are designed for termination of a bare or tin plated copper shield on a cable having an insulation rating for at least 85°C. **Temperature Range:** -55°C ~ 125°C



Diameter A Minimum	Dimensions - Inches (mm)		Digi-Key Part No.	Pricing			Raychem Part No.
	Diameter B Minimum	Length - L Maximum		10	50	100	
.098 (2.50)	.118 (3.00)	.965 (24.50)	CWT3W1225-ND	29.75	133.11	219.24	CWT-3-W122-5
.169 (4.30)	.189 (4.80)	1.154 (29.30)	CWT5W1225-ND	22.60	101.11	166.54	CWT-5-W122-5
.252 (6.40)	.287 (7.30)	1.280 (32.50)	CWT7W1225-ND	16.97	75.93	125.07	CWT-7-W122-5

S01-0X-R Series – Shield Terminators

Materials: • **Insulation Sleeve:** Heat-shrinkable, transparent blue, radiation cross-linked modified polyvinylidene fluoride. • **Solder Preform with Flux and Thermal Indicator:** Solder: Type Sn63 per ANSI/J-STD-006 Flux: Type ROL1 per ANSI/J-STD-004 **Thermal Indicator:** Color change: violet to colorless **Application:** These parts are designed to make an environment resistant shield termination • **Jacket Rating:** 125°C • **Parts** are qualified to M83519/1



Diameter A Minimum	Dimensions - Inches (mm)		Digi-Key Part No.	Pricing			Raychem Part No.
	Diameter B Minimum	Length - L Nominal		10	50	100	
.075 (1.90)	.105 (2.65)	.65 (16.5)	S0101R-ND	19.20	85.89	141.46	S01-01-R
.105 (2.65)	.145 (3.68)	.65 (16.5)	S0102R-ND	18.38	82.24	135.46	S01-02-R
.170 (4.30)	.200 (5.08)	.65 (16.5)	S0103R-ND	20.06	89.73	147.78	S01-03-R
.235 (5.95)	.255 (6.45)	.75 (19.1)	S0104R-ND	23.86	106.71	175.76	S01-04-R
.275 (7.00)	.300 (7.60)	.75 (19.1)	S0105R-ND	27.68	123.83	203.97	S01-05-R

D-406 Series – DURASEAL® Closed Barrel / Crimp Splice

Materials: • **Insulation Sleeve:** Heat shrinkable, radiation cross-linked polyamide (nylon) with a polyamide-based hot-melt adhesive liner. Color: per table. • **Crimp Splice:** Tin-plated copper alloy **Application:** These parts may be used to obtain an environment-resistant one-to-one in-line (butt) splice in wires meeting the size range and diameter restraints specified herein and having a temperature rating of not less than 85°C.

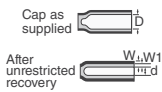


AWG (Color)	Dimensions - Inches (mm)			Digi-Key Part No.	Pricing			Raychem Part No.
	Diameter A Minimum	Diameter B Minimum	Length - L Nominal		10	50	100	
18-22 (Red)	.058 (1.47)	.146 (3.70)	1.24 (31.5)	D4060001-ND	8.81	39.40	64.90	D-406-0001
14-16 (Blue)	.092 (2.33)	.181 (4.60)	1.24 (31.5)	D4060002-ND	8.55	38.26	63.02	D-406-0002
10-12 (Yellow)	.138 (3.50)	.255 (6.50)	1.48 (37.5)	D4060003-ND	11.95	53.47	88.07	D-406-0003

Raychem Heat Shrinkable Caps

PD and ES Caps Series

PD Caps Series – Semirigid, Encapsulant-lined: Dual wall PD Caps inexpensively encapsulate crimped electrical connections, including those on motor coils. They remain tightly in place for the life of the motor. • **Full Recovery Temperature:** 135°C • **Operating Temperature:** -55°C ~ 110°C • UL Recognized File No. E85381 • CSA Certified LR31929



ES Caps Series – Semirigid, Adhesive-lined, Polyolefin: ES Caps are specifically designed to provide mechanical and environmental protection of stub splices in electrical harnesses. Clear ES Caps allow see-through inspection; black ES Caps are flame-retardant. • **Full Recovery Temperature:** 135°C • **Operating Temperature:** -40°C ~ 105°C • UL Recognized File No. E85381

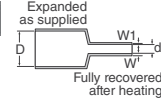
Tubing Size	Inside Diameter		Recovered Wall Thick. W mm	Digi-Key Part No.	Pricing			Raychem Part No.
	Expanded D - Min. mm	Recovered d - Max. mm			100	500	1,000	
PD Caps Series - Black								
1/8	3.2	0.58	1.22	PDC018K-ND	5.26	23.00	39.42	PD-CAP-1/8-0
3/16	4.7	1.52	1.57	PDC016K-ND	5.52	24.15	41.40	PD-CAP-3/16-0
1/4	6.4	2.03	1.98	PDC014K-ND	9.12	39.91	68.41	PD-CAP-1/4-0
3/8	9.5	2.29	2.08	PDC038K-ND	16.37	71.63	122.81	PD-CAP-3/8-0
1/2	12.7	2.29	2.54	PDC012K-ND	27.55	120.55	206.66	PD-CAP-1/2-0

† Wall thickness will be less if tubing recovery is restricted during shrinkage ‡ Size before shrinking

Min. Length	Inside Diameter		Recov. Wall Thick.†		Digi-Key Part No.	Pricing			Raychem Part No.
	Expand. D - Min. mm	Recov. d - Max. mm	Total W mm	Melttable W1 mm		100	500	1,000	
ES Caps Series - Clear									
30	5.70	1.27	1.20	0.56	ESC30C-ND	8.89	38.91	66.70	ES-CAP-NO.1-C1-X-30MM
35	5.70	1.27	1.20	0.56	ESC35C-ND	10.08	44.10	75.60	ES-CAP-NO.1-C1-X-35MM
30	7.40	1.65	1.52	0.76	ESB30C-ND	10.70	46.81	80.24	ES-CAP-NO.2-B9-X-30MM
35	7.40	1.65	1.52	0.76	ESB35C-ND	11.96	52.36	89.76	ES-CAP-NO.2-B9-X-35MM
40	10.85	2.41	1.91	1.02	ESB40C-ND	21.42	93.74	160.71	ES-CAP-NO.3-B8-X-40MM
50	10.85	2.41	1.91	1.02	ESB50C-ND	25.97	113.60	194.75	ES-CAP-NO.3-B8-X-50MM
ES Caps Series - Black									
30	5.70	1.27	1.20	0.56	ESC30K-ND	8.89	38.91	66.70	ES-CAP-NO.1-C1-0-30MM
35	5.70	1.27	1.20	0.56	ESC35K-ND	10.08	44.10	75.60	ES-CAP-NO.1-C1-0-35MM
30	7.40	1.65	1.52	0.76	ESB30K-ND	10.70	46.81	80.24	ES-CAP-NO.2-B9-0-30MM
35	7.40	1.65	1.52	0.76	ESB35K-ND	11.96	52.36	89.76	ES-CAP-NO.2-B9-0-35MM
40	10.85	2.41	1.91	1.02	ESB40K-ND	21.42	93.74	160.71	ES-CAP-NO.3-B8-0-40MM
50	10.85	2.41	1.91	1.02	ESB50K-ND	25.97	113.60	194.75	ES-CAP-NO.3-B8-0-50MM

† Wall thickness will be less if tubing recovery is restricted during shrinkage ‡ Size before shrinking

Raychem Heat-Shrink Tubing
ATUM, DWP-125, and TAT-125 Series



ATUM Series – Adhesive-lined, High-Shrink-Ratio, Polyolefin:

• **Shrink Temperature:** 80°C • **Full Recovery Temperature:** 110°C • **Operating Temperature:** -55°C ~ 110°C • **Color:** Black • **Shrink Ratio:** 3:1 and 4:1 • **UL Recognized file No.** E85381 • **Military AMS-DTL-23053/4 Applications:** • Environmentally seals and protects a wide variety of electrical applications, including back end connector sealing, breakouts, and connector-to-cable transitions. High expansion ratio makes it possible to repair most damaged cable jackets without removing connectors. • Bonds to a wide variety of plastics, rubbers, and metals, including polyethylene, aluminum, steel, and copper. • **Dual Wall**

DWP-125 Series – Adhesive-lined, Flexible, High-Shrink-Ratio, Polyolefin:

• **Shrink Temperature:** 80°C • **Full Recovery Temperature:** 125°C • **Operating Temperature:** -40°C ~ 110°C • **Color:** Black • **Shrink Ratio:** 3:1 • **UL Recognized file No.** E35586 • **CSA Certified LR31929** • **Military AMS-DTL-23053/4 Applications:** • Environmentally seals and protects a wide variety of electrical applications, including wire splices, breakouts, and connector-to-cable transitions. Ideal for applications where UL recognized/CSA certified adhesive-lined tubing is required. • Bonds to a wide variety of plastics, rubbers, and metals, including polyethylene, neoprene, and steel. • **Dual Wall**

TAT-125 Series – Adhesive-lined, Flexible, Polyolefin:

• **Shrink Temperature:** 95°C • **Full Recovery Temperature:** 121°C • **Operating Temperature:** -55°C ~ 110°C • **Color:** Black • **Shrink Ratio:** 2:1 • **UL Recognized file No.** E85381 • **Military AMS-DTL-23053/4 Applications:** • Seals and protects simple in-line splices, bimetallic joints, and components from fluids, moisture, and corrosion. Repairs damaged wire insulation, especially where flexibility is required. Provides one-step electrical insulation and moisture sealing. • Bonds to a wide variety of plastics, rubbers, and metals, including polyethylene, neoprene, lead, and steel. • **Dual Wall**

Tubing Size	Inside Diameter		Recov. Wall Thick.†		Digi-Key Part No.	Sold in 4' Lengths Only				
	Expand. D - Min. mm	Recov. d - Max. mm	Total W mm	Melttable W1 mm		4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
ATUM Series										
3/1	3.0	1.0	1.00	0.50	ATU031K-ND	7.04	12.20	27.00	56.34	93.90
6/2	6.0	2.0	1.00	0.50	ATU062K-ND	10.72	18.58	41.10	85.74	142.90
9/3	9.0	3.0	1.40	0.61	ATU093K-ND	16.33	28.30	62.58	130.60	217.67
12/4	12.0	4.0	1.78	0.76	ATU124K-ND	19.44	33.69	74.50	155.48	259.13
19/6	19.0	6.0	2.25	0.76	ATU196K-ND	27.21	47.16	104.30	217.66	362.77
24/8	24.0	8.0	2.54	1.02	ATU248K-ND	19.78	34.28	75.81	158.22	263.70
40/13	40.0	13.0	2.54	1.02	ATU4013K-ND	32.40	56.16	124.20	259.19	431.98
4/1	4.0	1.0	1.00	0.50	ATM041K-ND	6.45	11.18	24.73	51.60	86.00
8/2	8.0	2.0	1.00	0.50	ATM082K-ND	9.03	15.65	34.61	72.23	120.39
12/3	12.0	3.0	1.40	0.61	ATM123K-ND	22.24	38.56	85.28	177.96	296.60
16/4	16.0	4.0	1.78	0.76	ATM164K-ND	29.66	51.41	113.70	237.28	395.47
24/6	24.0	6.0	2.25	0.76	ATM246K-ND	23.86	41.37	91.48	190.91	318.18
32/8	32.0	8.0	2.54	1.02	ATM328K-ND	32.25	55.89	123.62	257.98	429.98
52/13	52.0	13.0	2.54	1.02	ATM5213K-ND	41.28	71.55	158.23	330.22	550.37
DWP-125 Series										
1/8	3.2	1.0	1.02	0.25	DWP018K-ND	4.50	7.80	17.26	36.02	60.04
3/16	4.8	1.5	1.40	0.51	DWP316K-ND	4.69	8.13	17.99	37.54	62.57
1/4	6.4	2.0	1.45	0.56	DWP014K-ND	5.88	10.19	22.54	47.02	78.37
3/8	9.5	3.0	1.65	0.68	DWP038K-ND	6.49	11.25	24.87	51.91	86.52
1/2	12.7	4.0	1.78	0.76	DWP012K-ND	6.48	11.24	24.86	51.88	86.47
3/4	19.1	6.0	2.03	0.76	DWP034K-ND	9.08	15.74	34.80	72.63	121.05
1	25.4	8.0	2.50	0.76	DWP010K-ND	12.65	21.92	48.48	101.16	168.61
1-1/2	38.1	13.0	2.50	0.76	DWP112K-ND	42.01	72.81	161.01	336.03	560.05
TAT-125 Series										
1/8	3.2	1.6	0.69	0.23	TAT018K-ND	4.60	7.96	17.61	36.74	61.24
3/16	4.8	2.4	0.71	0.25	TAT316K-ND	5.58	9.68	21.41	44.69	74.47
1/4	6.4	3.2	0.74	0.13	TAT014K-ND	7.01	12.14	26.84	56.02	93.37
3/8	9.5	4.8	0.74	0.13	TAT038K-ND	7.81	13.54	29.95	62.50	104.17
1/2	12.7	6.4	0.76	0.15	TAT012K-ND	9.71	16.84	37.23	77.69	129.48
3/4	19.1	9.5	0.89	0.15	TAT034K-ND	12.93	22.41	49.56	103.43	172.38



RW-175, RNF-100, and Versafit Series

RW-175 Series – Thin-wall, Semirigid, Fluoropolymer:

• Shrink Temperature: 95°C • Full Recovery Temperature: 175°C • Operating Temperature: -55°C – 175°C • Shrink Ratio: 2:1 • Color: Clear • UL Recognized File No. E35586 VW-1 • CSA Certified LR31929 VW-1 • AMS-DTL-23053/8 • Suitable for applications requiring high-temperature performance, outstanding abrasion and cut-through resistance, or superior chemical and solvent properties. The translucent polyvinylidene fluoride material permits visual inspection of covered components

RNF-100 Series – Flexible, Flame-retardant, High Performance Polyolefin:

• Shrink Temperature: 95°C • Full Recovery Temperature: 121°C • Operating Temperature: -55°C – 135°C • Shrink Ratio: 2:1 • Color: Black • UL Recognized File No. E35586 VW-1 • CSA Certified LR31929 VW-1 • AMS-DTL-23053/5 • High-quality, heat-shrinkable product for a wide variety of uses. It has become the industry standard for insulation, strain relief, wire bundling, and color-coding in both commercial and military applications. Excellent physical, chemical and electrical properties that meet industrial and military requirements for a highly reliable, general-purpose tubing.

Versafit Series – Highly Flame-retardant, Low Recovery Temperature:

• Shrink Temperature: 70°C • Full Recovery Temperature: 90°C • Operating Temperature: -55°C – 135°C • Shrink Ratio: 2:1 • Color: Black • UL Recognized File No. E35586 VW-1 • CSA Certified LR31929 VW-1 • AMS-DTL-23053/5 • Cost-effective for commercial and military applications. It is made from a specially formulated, cross-linked polyolefin to provide high flame-retardance, excellent flexibility, and low shrink temperature (to reduce installation time).

Tubing Size Diameter† Inches (mm)	Min. Expand. D mm	Max. Recov. d mm	Nom. Recov. Wall Thick.† W mm	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length				
					4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
RW-175 Series – Thin wall, Semirigid, Fluoropolymer									
3/64 (1.19)	1.2	0.6	0.25	RW364C-ND	3.33	5.77	12.76	26.64	44.39
1/16 (1.60)	1.6	0.8	0.25	RW116C-ND	3.50	6.06	13.40	27.97	46.62
3/32 (2.38)	2.4	1.2	0.25	RW332C-ND	3.88	6.73	14.89	31.07	51.79
1/8 (3.18)	3.2	1.6	0.25	RW018C-ND	4.23	7.34	16.23	33.87	56.44
3/16 (4.78)	4.7	2.4	0.25	RW316C-ND	6.60	11.44	25.30	52.81	88.01
1/4 (6.35)	6.4	3.2	0.33	RW014C-ND	8.31	14.41	31.86	66.50	110.84
3/8 (9.52)	9.5	4.7	0.33	RW038C-ND	9.99	17.32	38.30	79.92	133.20
1/2 (12.70)	12.7	6.4	0.33	RW012C-ND	17.85	30.95	68.45	142.84	238.07
3/4 (19.05)	19.1	9.5	0.43	RW034C-ND	32.85	56.94	125.92	262.80	438.00
RNF-100 Series – Flexible, Flame-retardant, High Performance Polyolefin									
3/64 (1.19)	1.2	0.6	0.40	RNF364K-ND	1.29	2.23	4.93	10.29	17.16
1/16 (1.60)	1.6	0.8	0.43	RNF116K-ND	1.32	2.29	5.06	10.56	17.60
3/32 (2.38)	2.4	1.2	0.51	RNF332K-ND	1.39	2.42	5.34	11.16	18.60
1/8 (3.18)	3.2	1.6	0.51	RNF018K-ND	1.50	2.59	5.73	11.96	19.94
3/16 (4.78)	4.7	2.4	0.51	RNF316K-ND	1.82	3.15	6.97	14.54	24.23
1/4 (6.35)	6.4	3.2	0.64	RNF014K-ND	2.28	3.95	8.73	18.22	30.36
3/8 (9.52)	9.5	4.8	0.64	RNF038K-ND	2.55	4.41	9.76	20.38	33.96
1/2 (12.70)	12.7	6.4	0.64	RNF012K-ND	3.17	5.49	12.15	25.35	42.25
3/4 (19.05)	19.1	9.5	0.76	RNF034K-ND	4.25	7.35	16.27	33.96	59.59
1 (25.4)	25.4	12.7	0.89	RNF001K-ND	6.46	11.20	24.76	51.68	86.15
1 1/2 (38.1)	38.1	19.1	1.02	RNF112K-ND	8.91	15.43	34.14	71.24	118.74
2 (50.8)	50.8	25.4	1.14	RNF002K-ND	11.03	19.11	42.27	88.21	147.02
3 (76.2)	76.2	38.1	1.27	RNF003K-ND	27.79	48.18	106.54	222.35	370.59
4 (101.6)	101.6	50.8	1.40	RNF004K-ND	46.33	80.30	177.57	370.58	617.64

Tubing Size Diameter† Inches (mm)	Min. Expand. D mm	Max. Recov. d mm	Nom. Recov. Wall Thick.† W mm	Digi-Key Part No.	Spool Size Feet	Price Per Spool	Raychem Part No.	Sold in 4' Lengths Only Price Per Length				
								4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
RNF-100 Series – Flexible, Flame-retardant, High Performance Polyolefin												
3/64 (1.19)	1.2	0.6	0.40	RNF364K-100-ND	100	14.71	RFN-100-MINI-SPL-3/64-BK	10.47	18.14	40.34	83.42	138.74
1/16 (1.60)	1.6	0.8	0.43	RNF116K-75-ND	75	14.71	RFN-100-MINI-SPL-1/16-BK	10.47	18.14	40.34	83.42	138.74
3/32 (2.38)	2.4	1.2	0.51	RNF332K-65-ND	65	14.71	RFN-100-MINI-SPL-3/32-BK	10.47	18.14	40.34	83.42	138.74
1/8 (3.18)	3.2	1.6	0.51	RNF018K-60-ND	60	14.71	RFN-100-MINI-SPL-1/8-BK	10.47	18.14	40.34	83.42	138.74
3/16 (4.78)	4.7	2.4	0.51	RNF316K-50-ND	50	14.71	RFN-100-MINI-SPL-3/16-BK	10.47	18.14	40.34	83.42	138.74
1/4 (6.35)	6.4	3.2	0.64	RNF014K-40-ND	40	14.71	RFN-100-MINI-SPL-1/4-BK	10.47	18.14	40.34	83.42	138.74
3/8 (9.52)	9.5	4.8	0.64	RNF038K-35-ND	35	14.71	RFN-100-MINI-SPL-3/8-BK	10.47	18.14	40.34	83.42	138.74
1/2 (12.70)	12.7	6.4	0.64	RNF012K-30-ND	30	14.71	RFN-100-MINI-SPL-1/2-BK	10.47	18.14	40.34	83.42	138.74
3/4 (19.05)	19.1	9.5	0.76	RNF034K-25-ND	25	14.71	RFN-100-MINI-SPL-3/4-BK	10.47	18.14	40.34	83.42	138.74
1 (25.4)	25.4	12.7	0.89	RNF001K-15-ND	15	14.71	RFN-100-MINI-SPL-1-BK	10.47	18.14	40.34	83.42	138.74
Versafit – Highly Flame-retardant, Low Recovery Temperature												
3/64 (1.19)	1.63	0.6	0.40	VER364K-100-ND	100	14.83	VERSAFIT-MINI-SPL-3/64-BK	10.47	18.14	40.34	83.42	138.74
1/16 (1.60)	1.85	0.8	0.43	VER116K-75-ND	75	14.83	VERSAFIT-MINI-SPL-1/16-BK	10.47	18.14	40.34	83.42	138.74
3/32 (2.38)	2.79	1.2	0.51	VER332K-65-ND	65	14.83	VERSAFIT-MINI-SPL-3/32-BK	10.47	18.14	40.34	83.42	138.74
1/8 (3.18)	3.43	1.6	0.51	VER018K-60-ND	60	14.83	VERSAFIT-MINI-SPL-1/8-BK	10.47	18.14	40.34	83.42	138.74
3/16 (4.78)	5.21	2.4	0.51	VER316K-50-ND	50	14.83	VERSAFIT-MINI-SPL-3/16-BK	10.47	18.14	40.34	83.42	138.74
1/4 (6.35)	7.11	3.2	0.64	VER014K-40-ND	40	14.83	VERSAFIT-MINI-SPL-1/4-BK	10.47	18.14	40.34	83.42	138.74
3/8 (9.52)	10.16	4.8	0.64	VER038K-35-ND	35	14.83	VERSAFIT-MINI-SPL-3/8-BK	10.47	18.14	40.34	83.42	138.74
1/2 (12.70)	13.72	6.4	0.64	VER012K-30-ND	30	14.83	VERSAFIT-MINI-SPL-1/2-BK	10.47	18.14	40.34	83.42	138.74
3/4 (19.05)	20.45	9.5	0.76	VER034K-25-ND	25	14.83	VERSAFIT-MINI-SPL-3/4-BK	10.47	18.14	40.34	83.42	138.74
1 (25.4)	25.53	12.7	0.89	VER001K-15-ND	15	14.83	VERSAFIT-MINI-SPL-1-BK	10.47	18.14	40.34	83.42	138.74

† Wall thickness will be less if tubing recovery is restricted during shrinkage ‡ Size before shrinking

Versafit Heat Shrink Tubing Kits

VERSAS1-KIT-ND 3/16" 30 pcs., 1/4" 28 pcs., 3/8" 24 pcs., 1/2" 20 pcs., 3/4" 14 pcs., 1" 10 pcs., Black.....	49.12
Refill parts:	
VERS316K-ND 3/16" 30 pieces, Black.....	6.14
VER012K-ND 1/2" 20 pieces, Black.....	6.14
VER014K-ND 1/4" 28 pieces, Black.....	6.14
VER034K-ND 3/4" 14 pieces, Black.....	6.14
VER038K-ND 3/8" 24 pieces, Black.....	6.14
VER001K-ND 1" 10 pieces, Black.....	6.27

VERSAS2-KIT-ND Color Kit includes Red, Black, Yellow, Clear, White, Green and Blue tubing.
3/32" 35 pcs. (5 of each color), 1/8" 28 pcs. (4 of each color), 3/16" 21 pcs. (3 of each color), 1/4" 21 pcs. (3 of each color), 3/8" 14 pcs. (2 of each color), 1/2" 14 pcs. (2 of each color) 52.37

Refill parts:	
VERS32M-ND 3/32" 35 pieces, Black.....	6.14
VER014M-ND 1/4" 21 pieces, Black.....	6.14
VER018M-ND 1/8" 28 pieces, Black.....	6.14
VER038M-ND 3/8" 14 pieces, Black.....	6.14
VER316M-ND 3/16" 21 pieces, Black.....	6.14
VER012M-ND 1/2" 14 pieces, Black.....	6.14

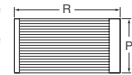
VERSAS4-KIT-ND 3/16", 1/4", 3/8", 1/2", 3/4" and 1" 18 pieces (3 pieces of each size), Black..... 6.14
VERSAS6-KIT-ND 3/64", 1/16", 3/32" and 1/8" 24 pieces (6 pieces of each size), Black..... 6.14

Note: All kits have 6" pieces

Quick Shrink Wrap



Heat-shrinkable wraparound repair sleeves combine the ease of insulation of self-adhesive tapes with the superior sealing and insulating capabilities of heat-shrinkable tubing. The black, adhesive-backed polyolefin wraparound sleeves permit fast, permanent repairs of minor damage to cable insulation without requiring the connector to be removed from the cable prior to repair. The sleeves can also be used to organize and group wire bundles. • Wall Thickness: 0.65mm



Dimensions - mm		Digi-Key Part No.	Price Each		
P	R		1	5	10
60	100	QSW60100-ND	5.72	5.01	4.58
60	200	QSW60200-ND	9.64	8.44	7.72
60	300	QSW60300-ND	13.34	11.68	10.68
60	400	QSW60400-ND	17.38	15.21	13.91
100	100	QSW100100-ND	6.97	6.10	5.58
100	200	QSW100200-ND	12.65	11.07	10.12
100	300	QSW100300-ND	17.90	15.67	14.33

DABURN Shrinkable Tubing – Black Polyolefin



The most widely used, general purpose heat shrinkable tubing. An irradiated flexible, flame-retardant polyolefin tubing with a wide scope of applications. These include: harnessing, wire bundling, strain reliefs, or any application where components or cables must be insulated or packaged. Specifications: • UL224 • CSA Approved • AMS-DTL-23053/5 • MSFC-276B • AMS 3636B • Operating Temperature: -55°C – 135°C • Shrinkage Ratio: To 50% of supplied diameter at 90°C • Electrical Properties: Dielectric Strength: 1300 V/mil (512 kV/cm) Volume Resistivity: 10¹⁵ Ω-cm • Physical Properties: Tensile Strength: 2500 PSI, nominal (176 kg/cm²) Ultimate Elongation: 400% nominal

Shrink Tubing Digi-Key® Assortment Kit
Contains the following:
W181-5-ND W184-5-ND
W182-5-ND W185-5-ND
W183-5-ND W186-5-ND
STA-KIT-ND..... 7.95

Minimum Supp. I.D. Inches (mm)	Maximum Recov. I.D. Inches (mm)	Nom. Recov. Wall Thick. Inches (mm)	Digi-Key Part No.	(NOTE: "X" in Digi-Key Part No. Represents No. of Feet) Price Per Length			
				5'	25'	50'	100'
.06 (1.60)	.03 (.78)	.017 (.43)	W181-X-ND	1.65	7.35	13.16	23.68
.09 (2.36)	.05 (1.27)	.020 (.50)	W182-X-ND	1.74	7.75	13.87	—
.13 (3.18)	.06 (1.58)	.020 (.50)	W183-X-ND	1.85	8.27	14.81	26.65
.19 (4.75)	.09 (2.36)	.020 (.50)	W184-X-ND	2.20	9.84	17.61	31.71
.25 (6.35)	.13 (3.18)	.025 (.63)	W185-X-ND	2.89	12.91	23.12	41.62
.38 (9.52)	.19 (4.75)	.025 (.63)	W186-X-ND	3.04	13.59	24.34	43.81
.50 (12.7)	.25 (6.35)	.025 (.63)	W187-X-ND	3.47	15.49	27.74	49.93
.75 (19.1)	.38 (9.52)	.030 (.76)	W188-X-ND	4.68	20.90	37.43	67.39
1.0 (25.4)	.50 (12.70)	.035 (.88)	W189-X-ND†	7.18	32.08	57.47	95.78
3.0 (76.2)	1.5 (38.10)	.050 (1.27)	W192-X-ND†	31.49	141.69	261.74	—
4.0 (101.6)	2.0 (50.80)	.055 (1.40)	W193-X-ND†	37.38	168.22	398.96	—

NOTE: Longer lengths available, call Digi-Key † Available only in listed lengths

Irradiated Polyolefin Heat Shrink



DAFLEX SH277 shrinkable irradiated polyolefin tubing is flame retardant and withstands up to 300°C (572°F) for short durations and can be hot stamped. Specifications: • Shrink Ratio: 4:1 • Longitudinal Shrinkage: 10% maximum • Shrink Temperature: 120°C (250°F) • Continuous Operation Temperature: -55°C – 135°C • Meets or exceeds MIL-I-23053/5 Class 1 and 3

Description	Minimum Supplied I.D. Inch (mm)	Maximum Recovery I.D. Inch (mm)	Nominal Recovered Wall Thick. Inch (mm)	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length				
					4' (1pc.)	8' (2pc.)	20' (5pc.)	48' (12pc.)	100' (25pc.)
1" x 4' Black	1.0 (25.4)	.26 (6.5)	.060 (1.5)	W203-ND	49.75	66.33	149.24	298.47	538.91
2" x 4' Black	2.0 (50.8)	.50 (12.7)	.060 (1.5)	W204-ND	68.04	90.72	204.12	408.24	737.11

Polyolefin Heat Shrink



DAFLEX SM278 is a flexible, large ratio, heat shrinkable tubing with a malle



Heat Shrink Tubing

Dual Wall, Adhesive-Lined Flexible Polyolefin Tubing Q5-2X and Q5-3X Series

Features: • Designed to provide both insulation and sealing for protection against water and moisture of auto wires, shipping cables, metal tubes and bundled wires.

Specifications: • **Operating Temperature:** -45°C ~ 125°C • **Full Recovery Temperature:** 125°C • **Approvals:** UL 224: 125°C, 600V, File No. E236137 • **Shrink Ratio:** Q5-2X Series: 2:1, Q5-3X Series: 3:1 • **Color:** Black

Tubing Dia. $\frac{1}{8}$ Inches	As Supplied Minimum Inside Diameter mm	After Recovered - mm			Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length		
		Maximum Inside Diameter	Nominal Wall Thickness	Nominal Adhesive Thickness		4' (1 pc.)	8' (2 pc.)	20' (5 pc.)
Q5-2X Series								
3/16	3.2	1.60	0.70	0.20	Q52X018B-ND	.92	1.60	3.53
3/16	4.8	2.40	0.70	0.20	Q52X0316B-ND	1.10	1.92	4.24
1/4	6.4	3.20	0.75	0.20	Q52X014B-ND	1.35	2.34	5.18
3/8	9.5	4.80	0.75	0.20	Q52X038B-ND	1.84	3.19	7.06
1/2	12.7	6.40	0.75	0.20	Q52X012B-ND	2.52	4.36	9.65
3/4	19.1	9.50	0.90	0.20	Q52X034B-ND	4.12	7.14	15.78
1	25.4	12.70	1.10	0.20	Q52X100B-ND	6.08	10.54	23.31
1 1/2	38.1	19.00	1.10	0.20	Q52X112B-ND	10.13	17.56	38.84
Q5-3X Series								
1/8	3.0	0.60	1.00±0.10	0.50	Q53X018B-ND	.92	1.60	3.53
3/16	4.8	1.50	1.10±0.10	0.50	Q53X0316B-ND	1.10	1.92	4.24
1/4	6.0	2.00	1.20±0.10	0.50	Q53X014B-ND	1.35	2.34	5.18
3/8	9.0	3.00	1.30±0.10	0.60	Q53X038B-ND	1.84	3.19	7.06
1/2	12.0	4.00	1.70±0.15	0.80	Q53X012B-ND	2.82	4.90	10.84
3/4	19.0	6.00	2.00±0.20	0.80	Q53X034B-ND	4.48	7.77	17.18
1	24.0	8.00	2.20±0.20	1.05	Q53X100B-ND	7.06	12.24	27.07
1 1/4	30.0	10.00	2.40±0.20	1.05	Q53X114B-ND	8.48	14.69	32.50
1 1/2	40.0	13.00	2.50±0.20	1.05	Q53X112B-ND	9.90	17.51	38.07
2	50.0	19.00	2.50±0.20	1.05	Q53X200B-ND	14.21	25.14	54.65

‡ Size before shrinking

Polyolefin Heat Shrink Tubing

Q2-F and Q2-F3X Series

Features: • Environmentally friendly flame retardant shrink tubing • Good flexibility and superior mechanical strength in such fields as electronics, communication and automobile

Specifications: • **Operating Temperature:** -55° ~ 135°C • **Full Recovery Temperature:** 100°C • **Shrink Ratio:** Q2-F: 2:1, Q2-F3X: 3:1 • **Approvals:** UL 224: 125°C, 600V, VW-1, File No. E236137 • **Material:** No PBB's, PBBO's, PBBE's • **Cadmium Content:** <5ppm • **Lead Content:** <10ppm • **Standard Color:** Black

Tubing Dia. $\frac{1}{8}$ Inches	As Supplied Minimum Inside Diameter mm	After Recovered		Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length			Spool Size Feet	Price Per Spool
		Maximum Inside Diameter	Nominal Wall Thickness		4' (1 pc.)	8' (2 pc.)	20' (5 pc.)		
Q2-F Series									
3/64	1.6	0.60	0.40±0.08	Q2F364B-ND	.26	.99	—	—	—
				Q2F364B-100-ND	—	—	100	3.27	—
				Q2F364B-1000-ND	—	—	1000	30.90	—
1/16	2.0	0.80	0.43±0.08	Q2F116B-ND	.27	1.04	—	—	—
				Q2F116B-100-ND	—	—	100	3.44	—
				Q2F116B-1000-ND	—	—	1000	32.44	—
3/32	3.1	1.20	0.51±0.08	Q2F332B-ND	.30	1.14	—	—	—
				Q2F332B-100-ND	—	—	100	3.77	—
				Q2F332B-500-ND	—	—	500	17.77	—
1/8	3.7	1.60	0.51±0.08	Q2F018B-ND	.32	1.23	—	—	—
				Q2F018B-100-ND	—	—	100	4.09	—
				Q2F018B-500-ND	—	—	500	19.31	—
3/16	5.2	2.40	0.51±0.08	Q2F316B-ND	.46	1.76	—	—	—
				Q2F316B-100-ND	—	—	100	5.82	—
				Q2F316B-500-ND	—	—	500	27.42	—
1/4	6.8	3.20	0.64±0.08	Q2F014B-ND	.57	2.20	—	—	—
				Q2F014B-100-ND	—	—	100	7.29	—
				Q2F014B-500-ND	—	—	500	34.38	—
5/16	8.8	4.00	0.64±0.08	Q2F516B-ND	.66	2.55	—	—	—
				Q2F516B-100-ND	—	—	100	8.44	—
				Q2F516B-250-ND	—	—	250	19.89	—
3/8	10.7	4.80	0.64±0.08	Q2F038B-ND	.78	2.99	—	—	—
				Q2F038B-100-ND	—	—	100	9.91	—
				Q2F038B-250-ND	—	—	250	23.37	—
1/2	13.7	6.40	0.64±0.08	Q2F012B-ND	.97	3.71	—	—	—
				Q2F012B-100-ND	—	—	100	12.28	—
				Q2F012B-200-ND	—	—	200	23.17	—
5/8	16.7	8.00	0.76±0.08	Q2F058B-ND	1.50	5.76	—	—	—
				Q2F058B-50-ND	—	—	50	9.54	—
				Q2F058B-200-ND	—	—	200	36.00	—
3/4	20.5	9.50	0.76±0.08	Q2F034B-ND	1.77	6.78	—	—	—
				Q2F034B-50-ND	—	—	50	11.22	—
				Q2F034B-200-ND	—	—	200	42.33	—
1	26.5	12.70	0.89±0.12	Q2F100B-ND	2.51	9.61	—	—	—
				Q2F100B-50-ND	—	—	50	15.93	—
				Q2F100B-200-ND	—	—	200	60.10	—
Q2-F3X Series									
1/16	1.6	0.5	0.45	Q2F3X116B-ND	.28	1.07	—	—	—
				Q2F3X116B-100-ND	—	—	100	3.35	—
				Q2F3X116B-500-ND	—	—	500	17.77	—
1/8	3.2	1.0	0.55	Q2F3X018B-ND	.35	1.33	—	—	—
				Q2F3X018B-100-ND	—	—	100	4.54	—
				Q2F3X018B-500-ND	—	—	500	22.01	—
3/16	4.8	1.5	0.60	Q2F3X316B-ND	.99	3.83	—	—	—
				Q2F3X316B-100-ND	—	—	100	6.53	—
				Q2F3X316B-250-ND	—	—	250	15.02	—

Tubing Dia. $\frac{1}{8}$ Inches	As Supplied Minimum Inside Diameter mm	After Recovered		Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length			Spool Size Feet	Price Per Spool
		Maximum Inside Diameter	Nominal Wall Thickness		4' (1 pc.)	8' (2 pc.)	20' (5 pc.)		
1/4	6.4	2.0	0.65	Q2F3X014B-ND	.68	2.61	—	—	—
				Q2F3X014B-100-ND	—	—	100	8.91	—
				Q2F3X014B-250-ND	—	—	250	21.63	—
3/8	9.5	3.0	0.75	Q2F3X038B-ND	.93	3.56	—	—	—
				Q2F3X038B-100-ND	—	—	100	12.18	—
				Q2F3X038B-250-ND	—	—	250	29.55	—
1/2	12.7	4.0	0.80	Q2F3X012B-ND	1.16	4.46	—	—	—
				Q2F3X012B-50-ND	—	—	50	7.59	—
				Q2F3X012B-150-ND	—	—	150	22.12	—
3/4	19.1	6.0	0.90	Q2F3X034B-ND	2.17	8.33	—	—	—
				Q2F3X034B-50-ND	—	—	50	14.19	—
				Q2F3X034B-150-ND	—	—	150	41.35	—
1	25.4	8.0	1.20	Q2F3X100B-ND	3.06	11.72	—	—	—
				Q2F3X100B-50-ND	—	—	50	20.00	—
				Q2F3X100B-150-ND	—	—	150	58.25	—
1 1/2	39.0	13.0	1.25	Q2F3X112B-ND	5.54	21.22	—	—	—
				Q2F3X112B-50-ND	—	—	50	35.12	—
				Q2F3X112B-150-ND	—	—	150	105.39	—

‡ Size before shrinking

Heat Shrink Tubing Kits

Q2-F and Q2-Z Series

Q2Z1-KIT-ND - Heat Shrink Kit 1 Includes: 180 pieces, 6" Lengths, Black 3/64" (40 pcs.), 1/16" (36 pcs.), 3/32" (32 pcs.), 1/8" (28 pcs.), 3/16" (24 pcs.), 1/4" (20 pcs.)	14.65
Q2Z2-KIT-ND - Heat Shrink Kit 2 Includes: 82 pieces, 6" Lengths, Black 5/16" (18 pcs.), 3/8" (16 pcs.), 1/2" (14 pcs.), 5/8" (14 pcs.), 3/4" (12 pcs.), 1" (8 pcs.)	19.97
Q2F1-KIT-ND - Heat Shrink Kit 1 Includes: 180 pieces, 6" Lengths, Black 3/64" (40 pcs.), 1/16" (36 pcs.), 3/32" (32 pcs.), 1/8" (28 pcs.), 3/16" (24 pcs.), 1/4" (20 pcs.)	16.03
Q2F8-KIT-ND - Heat Shrink Kit 2 Includes: 82 pieces, 6" Lengths, Black 5/16" (18 pcs.), 3/8" (16 pcs.), 1/2" (14 pcs.), 5/8" (14 pcs.), 3/4" (12 pcs.), 1" (8 pcs.)	21.97
Q2F15-KIT-ND - Heat Shrink Kit 4 Includes: 141 pieces, 6" Lengths, Assorted Colors 1/16" (39 pcs.), 1/8" (31 pcs.), 1/4" (23 pcs.), 3/8" (19 pcs.), 1/2" (19 pcs.), 1" (10 pcs.)	25.08

Refill Bags

Description	Digi-Key Part No.	Price Each
Refill Bags for Q2F Kit 1		
3/64", 40 pieces (consists of 6" pieces), Black	Q2F2-KIT-ND	.94
1/16", 36 pieces (consists of 6" pieces), Black	Q2F3-KIT-ND	.89
3/32", 32 pieces (consists of 6" pieces), Black	Q2F4-KIT-ND	.86
1/8", 28 pieces (consists of 6" pieces), Black	Q2F5-KIT-ND	.82
3/16", 24 pieces (consists of 6" pieces), Black	Q2F6-KIT-ND	1.00
1/4", 20 pieces (consists of 6" pieces), Black	Q2F7-KIT-ND	1.05
Refill Bags for Q2F Kit 2		
5/16", 18 pieces (consists of 6" pieces), Black	Q2F9-KIT-ND	1.09
3/8", 16 pieces (consists of 6" pieces), Black	Q2F10-KIT-ND	1.14
1/2", 14 pieces (consists of 6" pieces), Black	Q2F11-KIT-ND	1.23
5/8", 14 pieces (consists of 6" pieces), Black	Q2F12-KIT-ND	1.23
3/4", 12 pieces (consists of 6" pieces), Black	Q2F13-KIT-ND	1.94
1", 8 pieces (consists of 6" pieces), Black	Q2F14-KIT-ND	1.83
Refill Bags for Q2F Kit 4		
1/16, 39 pieces (consists of 6" pieces), Assorted Colors	Q2F16-KIT-ND	.97
1/8", 31 pieces (consists of 6" pieces), Assorted Colors	Q2F17-KIT-ND	.89
1/4", 23 pieces (consists of 6" pieces), Assorted Colors	Q2F18-KIT-ND	1.14
3/8", 19 pieces (consists of 6" pieces), Assorted Colors	Q2F19-KIT-ND	1.24
1/2", 19 pieces (consists of 6" pieces), Assorted Colors	Q2F20-KIT-ND	1.34
1", 10 pieces (consists of 6" pieces), Assorted Colors	Q2F21-KIT-ND	1.99

Modified Thin Wall Flexible

Kynar® (PVDF) Heat Shrink Tubing - Q-150K Series

Features: • Excellent flame retardant heat shrinkable polyvinylidene fluoride tubing • Outstanding abrasion and cut-through resistance • Superior chemical and solvent resistant properties • Available in clear and black

Specifications: • **Operating Temperature:** -55°C ~ 150°C • **Full Recovery Temperature:** 175°C • **Shrink Ratio:** 2:1 • **Approvals:** UL 224: 150°C, 600V, File No. E245010

Tubing Dia. $\frac{1}{8}$ Inches	As Supplied Minimum Inside Diameter mm	After Recovered		Color	Digi-Key Part No.	Sold in 4' Lengths Only Price Per Length		
		Maximum Inside Diameter	Wall Thickness mm			4' (1 pc.)	8' (2 pc.)	20' (5 pc.)
3/64	1.2	0.60	0.25±0.05	Clear	QKY364C-ND	1.07	1.86	4.12
				Black	QKY364B-ND	1.07	1.86	4.12
1/16	1.6	0.80	0.25±0.05	Clear	QKY116C-ND	1.20	2.08	4.60
				Black	QKY116B-ND	1.20	2.08	4.60
3/32	2.4	1.20	0.27±0.04	Clear	QKY332C-ND	1.52	2.63	5.81
				Black	QKY332B-ND	1.52	2.63	5.81
1/8	3.2	1.60	0.27±0.04	Clear	QKY018C-ND	1.83	3.17	7.02
				Black	QKY018B-ND	1.83	3.17	7.02
3/16	4.8	2.40	0.27±0.04	Clear	QKY316C-ND	2.59	4.49	9.92
				Black	QKY316B-ND	2.59	4.49	9.92
1/4	6.4	3.20	0.33±0.05	Clear	QKY014C-ND	3.16	5.47	