Abrasion Protection

Panduit abrasion protection products provide an economical and easy way to insulate, protect, bundle and color-code components and cable. A wide variety of sizes and materials are available to meet a broad range of indoor and outdoor applications. To help assure optimum quality, Panduit abrasion protection products are designed and manufactured to meet applicable quality standards including International, UL, Military, ISO, and Aerospace.

- **Pan-Wrap™ Split Harness Wrap features a patented slot pattern to improve flexibility and abrasion protection**
- **Spiral wrap bundles and protects wire and cable while providing the largest variety of colors, materials, and sizes to meet a variety of needs**
- **Grommet edging protects wire and cable from damage caused by sharp panel edges**
- **Heat shrink is available in many different materials and sizes to meet a variety of needs**
- **Corrugated loom tubing is crush, impact, and abrasion resistant to reduce the risk of damage to wire and cable**
- **Braided expandable sleeving provides continuous abrasion resistance and lightweight durable protection, with a flexible open weave that will not trap heat or humidity**

Panduit abrasion protection products provide quality at the lowest installed cost. With a continued focus on new product development, Panduit continues to meet customer needs.

Part Number System for Pan-Wrap™

PW	50	F	–	C	20
Type	**Outside Diameter**	**Material**		**Package Size**	**Color Suffix**
PW = Pan-Wrap™	38 = 3/8" 50 = 1/2" 75 = 3/4" 100 = 1" 150 = 1 1/2"	F = Polyethylene FR = Flame Retardant Polyethylene		L = 50' (15.2m) C = 100' (30.5m) T = 200' (61.0m) TL = 250' (76.2m)	Leave Blank = Natural 20 = Black Polyethylene 3 = Orange 4 = Yellow

Pan-Wrap™ Split Harness Wrap

- Patented slot pattern provides improved flexibility and abrasion protection in any application
- Unique wall design provides for easy cable breakouts
- Innovative design maintains uniform bundle protection in dynamic applications
- Considerably reduces installation time
- Large overlap accommodates a wide range of bundle diameters
- Packaged on a reel for easy handling and dispensing of product

Part Number	Material	Color	Length Per Reel		Max. Bundle Diameter		Min. Bundle Diameter‡		Temperature Range	Nominal I.D.		Std. Pkg. Qty.*
			Ft.	m	In.	mm	In.	mm		In.	mm	
PW38F-TL	Polyethylene	Natural	250	76.2	0.43	10.9	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.38	9.5	1
PW38F-TL20	Polyethylene	Black	250	76.2	0.43	10.9	0.25	6.4		0.38	9.5	1
PW38FR-TLY	Flame Retardant Polyethylene	Natural	250	76.2	0.43	10.9	0.25	6.4	-4°F – 167°F (-20°C – 75°C)	0.38	9.5	1
PW38FR-TL20Y	Flame Retardant Polyethylene	Black	250	76.2	0.43	10.9	0.25	6.4		0.38	9.5	1
PW50F-T	Polyethylene	Natural	200	61.0	0.55	14.0	0.43	10.9	-40°F – 122°F (-40°C – 50°C)	0.50	12.7	1
PW50F-T20	Polyethylene	Black	200	61.0	0.55	14.0	0.43	10.9		0.50	12.7	1
PW50F-T3	Polyethylene	Orange	200	61.0	0.55	14.0	0.43	10.9		0.50	12.7	1
PW50F-T4	Polyethylene	Yellow	200	61.0	0.55	14.0	0.43	10.9		0.50	12.7	1
PW50FR-TY	Flame Retardant Polyethylene	Natural	200	61.0	0.55	14.0	0.43	10.9	-4°F – 167°F (-20°C – 75°C)	0.50	12.7	1
PW50FR-T20Y	Flame Retardant Polyethylene	Black	200	61.0	0.55	14.0	0.43	10.9		0.50	12.7	1
PW75F-C	Polyethylene	Natural	100	30.5	0.81	20.6	0.55	14.0	-40°F – 122°F (-40°C – 50°C)	0.75	19.1	1
PW75F-C20	Polyethylene	Black	100	30.5	0.81	20.6	0.55	14.0		0.75	19.1	1
PW75F-C3	Polyethylene	Orange	100	30.5	0.81	20.6	0.55	14.0		0.75	19.1	1
PW75F-C4	Polyethylene	Yellow	100	30.5	0.81	20.6	0.55	14.0		0.75	19.1	1
PW75FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	0.81	20.6	0.55	14.0	-4°F – 167°F (-20°C – 75°C)	0.75	19.1	1
PW75FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	0.81	20.6	0.55	14.0		0.75	19.1	1
PW100F-C	Polyethylene	Natural	100	30.5	1.13	28.6	0.81	20.6	-40°F – 122°F (-40°C – 50°C)	1.00	25.4	1
PW100F-C20	Polyethylene	Black	100	30.5	1.13	28.6	0.81	20.6		1.00	25.4	1
PW100F-C3	Polyethylene	Orange	100	30.5	1.13	28.6	0.81	20.6		1.00	25.4	1
PW100F-C4	Polyethylene	Yellow	100	30.5	1.13	28.6	0.81	20.6		1.00	25.4	1
PW100FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	1.13	28.6	0.81	20.6	-4°F – 167°F (-20°C – 75°C)	1.00	25.4	1
PW100FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	1.13	28.6	0.81	20.6		1.00	25.4	1
PW150F-L	Polyethylene	Natural	50	15.2	1.63	41.3	1.13	28.6	-40°F – 122°F (-40°C – 50°C)	1.50	38.1	1
PW150F-L20	Polyethylene	Black	50	15.2	1.63	41.3	1.13	28.6		1.50	38.1	1
PW150F-L3	Polyethylene	Orange	50	15.2	1.63	41.3	1.13	28.6		1.50	38.1	1
PW150F-L4	Polyethylene	Yellow	50	15.2	1.63	41.3	1.13	28.6		1.50	38.1	1
PW150FR-LY	Flame Retardant Polyethylene	Natural	50	15.2	1.63	41.3	1.13	28.6	-4°F – 167°F (-20°C – 75°C)	1.50	38.1	1
PW150FR-L20Y	Flame Retardant Polyethylene	Black	50	15.2	1.63	41.3	1.13	28.6		1.50	38.1	1

‡Diameter can be further reduced with the use of Panduit cable ties.
*Order number of reels required.

Pan-Wrap™ Installation Tools

- Patented installation tool with 180° opening allows easy loading of maximum bundle diameters to speed installation, providing the lowest installed cost

Part Number	Color	For Use With	Std. Pkg. Qty.**
PWT38	White	PW38F- Series	1
PWT50	White	PW50F- Series	1
PWT75	White	PW75F- Series	1
PWT100	White	PW100F- Series	1
PWT150	White	PW150F- Series	1

**Order number of tools required.

Part Number System for Spiral Wrap

T – **25** **F** – **C** **16**

Type

T = Spiral Wrap

Outside Diameter

12 = 1/8"
19 = 3/16"
25 = 1/4"
38 = 3/8"
50 = 1/2"
62 = 5/8"
75 = 3/4"
100 = 1"

Material

F = Polyethylene
R = Fire Resistant Polyethylene
FR = Flame Retardant Polyethylene
N = Nylon
T = TFE^
P = Weather Resistant Polypropylene

Package Size

X = 10'
Q = 25'
L = 50'
C = 100'
T = 200'
TL = 250'
D = 500'
M = 1,000'

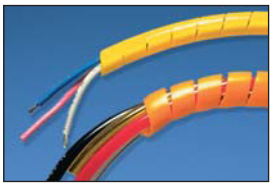
Color Suffix

See Table Below

Color	Color Suffix	Material Availability					
		Polyethylene	Fire Resistant Polyethelene	Flame Retardant Polyethelene	Nylon 6.6	Weather Resistant Polypropylene	TEFLON▲
Natural*	**No Suffix Will be Listed**	✓	✓	✓	✓		✓
Weather Resistant Black	0	✓			✓	✓	
Brown	1	✓					
Red	2	✓					
Orange	3	✓					
Yellow	4	✓					
Green	5	✓					
Blue	6	✓					
Purple	7	✓					
Gray	8	✓					
White	10	✓					
Pink	16	✓					
Black	20	✓	✓	✓	✓		

^TFE is Polytetrafluorethylene material.
*Natural can range from transparent, opaque, to white.

Spiral Wrap



- Harness multiple cables into a single manageable bundle
- Allows breakouts of single/multiple cables
- Provides abrasion protection for wire, cables, hoses, and tubing
- Multiple colors allow easy identification of cable bundles
- Installation tool supplied in each package
- Available in multiple materials
- Reusable

Part Number	Material*	Color	Length Per Reel		Bundle Diameter Range		Outside Diameter		Temperature Range	Wall Thickness		Std. Pkg. Qty.‡
			Ft.	m	In.	mm	In.	mm		In.	mm	
T12F-C	Polyethylene	Natural	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 122°F (-40°C – 50°C)	0.030	0.76	1
T12F-D	Polyethylene	Natural	500	152.4	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 122°F (-40°C – 50°C)	0.030	0.76	1
T19F-C	Polyethylene	Natural	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-40°F – 122°F (-40°C – 50°C)	0.035	0.89	1
T19F-M	Polyethylene	Natural	1,000	304.8	1/8 – 1	3.2 – 25.4	0.19	4.8	-40°F – 122°F (-40°C – 50°C)	0.035	0.89	1
T25F-C	Polyethylene	Natural	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C1	Polyethylene	Brown	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C2	Polyethylene	Red	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C3Y	Polyethylene	Orange	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C4Y	Polyethylene	Yellow	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C5	Polyethylene	Green	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C6	Polyethylene	Blue	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C7	Polyethylene	Purple	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C8	Polyethylene	Gray	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C10	Polyethylene	White	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C16	Polyethylene	Pink	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-M	Polyethylene	Natural	1,000	304.8	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T38F-C	Polyethylene	Natural	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 122°F (-40°C – 50°C)	0.055	1.40	1
T38F-TL	Polyethylene	Natural	250	76.2	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 122°F (-40°C – 50°C)	0.055	1.40	1
T50F-X	Polyethylene	Natural	10	3.1	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C	Polyethylene	Natural	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C1	Polyethylene	Brown	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C2	Polyethylene	Red	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C3Y	Polyethylene	Orange	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C4Y	Polyethylene	Yellow	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C5	Polyethylene	Green	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C6	Polyethylene	Blue	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C7	Polyethylene	Purple	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C8	Polyethylene	Gray	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C10	Polyethylene	White	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C16	Polyethylene	Pink	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1

*Flame retardant products are manufactured from a material that is rated UL 94V-0.
‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Order number of reels required, in multiples of Standard Package Quantity.

Spiral Wrap (continued)

Part Number	Material	Color	Length Per Reel		Bundle Diameter Range		Outside Diameter		Temperature Range	Wall Thickness		Std. Pkg. Qty.‡
			Ft.	m	In.	mm	In.	mm		In.	mm	
T50F-TL	Polyethylene	Natural	250	76.2	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-TL4Y	Polyethylene	Yellow	250	76.2	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T62F-C	Polyethylene	Natural	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 122°F (-40°C – 50°C)	0.062	1.57	1
T62F-TL	Polyethylene	Natural	250	76.2	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 122°F (-40°C – 50°C)	0.062	1.57	1
T75F-C	Polyethylene	Natural	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 122°F (-40°C – 50°C)	0.065	1.65	1
T75F-T	Polyethylene	Natural	200	61.0	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 122°F (-40°C – 50°C)	0.065	1.65	1
T100F-C	Polyethylene	Natural	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-40°F – 122°F (-40°C – 50°C)	0.070	1.78	1
T12F-C0	Weather Resistant Polyethylene	Black	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 122°F (-40°C – 50°C)	0.030	0.76	1
T12F-D0	Weather Resistant Polyethylene	Black	500	152.4	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 122°F (-40°C – 50°C)	0.030	0.76	1
T19F-C0	Weather Resistant Polyethylene	Black	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-40°F – 122°F (-40°C – 50°C)	0.035	0.89	1
T25F-X0	Weather Resistant Polyethylene	Black	10	3.1	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-C0	Weather Resistant Polyethylene	Black	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25F-M0	Weather Resistant Polyethylene	Black	1,000	304.8	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T38F-C0	Weather Resistant Polyethylene	Black	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 122°F (-40°C – 50°C)	0.055	1.40	1
T38F-TL0	Weather Resistant Polyethylene	Black	250	76.2	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 122°F (-40°C – 50°C)	0.055	1.40	1
T50F-X0	Weather Resistant Polyethylene	Black	10	3.1	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-C0	Weather Resistant Polyethylene	Black	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50F-TL0	Weather Resistant Polyethylene	Black	250	76.2	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T62F-C0	Weather Resistant Polyethylene	Black	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 122°F (-40°C – 50°C)	0.062	1.57	1
T62F-TL0	Weather Resistant Polyethylene	Black	250	76.2	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 122°F (-40°C – 50°C)	0.062	1.57	1
T75F-C0	Weather Resistant Polyethylene	Black	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 122°F (-40°C – 50°C)	0.065	1.65	1
T75F-T0	Weather Resistant Polyethylene	Black	200	61.0	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 122°F (-40°C – 50°C)	0.065	1.65	1
T100F-C0	Weather Resistant Polyethylene	Black	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-40°F – 122°F (-40°C – 50°C)	0.070	1.78	1
T12R-CY	Fire Resistant Polyethylene	Natural	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 122°F (-40°C – 50°C)	0.030	0.76	1
T19R-CY	Fire Resistant Polyethylene	Natural	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-40°F – 122°F (-40°C – 50°C)	0.035	0.89	1
T25R-CY	Fire Resistant Polyethylene	Natural	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25R-C20Y	Fire Resistant Polyethylene	Black	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1

*Flame retardant products are manufactured from a material that is rated UL 94V-0.
‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Table continues on page C3.6

Spiral Wrap (continued)

Part Number	Material*	Color	Length Per Reel		Bundle Diameter Range		Outside Diameter		Temperature Range	Wall Thickness		Std. Pkg. Qty.‡
			Ft.	m	In.	mm	In.	mm		In.	mm	
T25R-MY	Fire Resistant Polyethylene	Natural	1,000	304.8	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T25R-M20Y	Fire Resistant Polyethylene	Black	1,000	304.8	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 122°F (-40°C – 50°C)	0.040	1.02	1
T38R-CY	Fire Resistant Polyethylene	Natural	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 122°F (-40°C – 50°C)	0.055	1.40	1
T38R-TLY	Fire Resistant Polyethylene	Natural	250	76.2	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 122°F (-40°C – 50°C)	0.055	1.40	1
T50R-CY	Fire Resistant Polyethylene	Natural	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T50R-TLY	Fire Resistant Polyethylene	Natural	250	76.2	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	0.060	1.52	1
T62R-CY	Fire Resistant Polyethylene	Natural	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 122°F (-40°C – 50°C)	0.062	1.57	1
T75R-CY	Fire Resistant Polyethylene	Natural	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 122°F (-40°C – 50°C)	0.065	1.65	1
T100R-CY	Fire Resistant Polyethylene	Natural	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-40°F – 122°F (-40°C – 50°C)	0.070	1.78	1
T12FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-4°F – 167°F (-20°C – 75°C)	0.030	0.76	1
T12FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-4°F – 167°F (-20°C – 75°C)	0.030	0.76	1
T19FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-4°F – 167°F (-20°C – 75°C)	0.035	0.89	1
T19FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-4°F – 167°F (-20°C – 75°C)	0.035	0.89	1
T25FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-4°F – 167°F (-20°C – 75°C)	0.040	1.02	1
T25FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-4°F – 167°F (-20°C – 75°C)	0.040	1.02	1
T25FR-MY	Flame Retardant Polyethylene	Natural	1,000	304.8	3/16 – 2	4.8 – 50.8	0.25	6.4	-4°F – 167°F (-20°C – 75°C)	0.040	1.02	1
T25FR-M20Y	Flame Retardant Polyethylene	Black	1,000	304.8	3/16 – 2	4.8 – 50.8	0.25	6.4	-4°F – 167°F (-20°C – 75°C)	0.040	1.02	1
T38FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-4°F – 167°F (-20°C – 75°C)	0.055	1.40	1
T38FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-4°F – 167°F (-20°C – 75°C)	0.055	1.40	1
T38FR-TLY	Flame Retardant Polyethylene	Natural	250	76.2	5/16 – 3	7.9 – 76.2	0.38	9.5	-4°F – 167°F (-20°C – 75°C)	0.055	1.40	1
T50FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-4°F – 167°F (-20°C – 75°C)	0.060	1.52	1
T50FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-4°F – 167°F (-20°C – 75°C)	0.060	1.52	1
T50FR-TLY	Flame Retardant Polyethylene	Natural	250	76.2	3/8 – 4	9.5 – 101.6	0.50	12.7	-4°F – 167°F (-20°C – 75°C)	0.060	1.52	1
T62FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-4°F – 167°F (-20°C – 75°C)	0.062	1.57	1
T62FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-4°F – 167°F (-20°C – 75°C)	0.062	1.57	1
T75FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-4°F – 167°F (-20°C – 75°C)	0.065	1.65	1
T75FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-4°F – 167°F (-20°C – 75°C)	0.065	1.65	1
T75FR-TY	Flame Retardant Polyethylene	Natural	200	61.0	5/8 – 5	15.9 – 127.0	0.75	19.1	-4°F – 167°F (-20°C – 75°C)	0.065	1.65	1
T100FR-CY	Flame Retardant Polyethylene	Natural	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-4°F – 167°F (-20°C – 75°C)	0.070	1.78	1
T100FR-C20Y	Flame Retardant Polyethylene	Black	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-4°F – 167°F (-20°C – 75°C)	0.070	1.78	1

*Flame retardant products are manufactured from a material that is rated UL 94V-0.
‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Order number of reels required, in multiples of Standard Package Quantity.

Spiral Wrap (continued)

Part Number	Material*	Color	Length Per Reel		Bundle Diameter Range		Outside Diameter		Temperature Range	Wall Thickness		Std. Pkg. Qty.‡
			Ft.	m	In.	mm	In.	mm		In.	mm	
T12N-C	Nylon 6.6	Natural	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 149°F (-40°C – 65°C)	0.015	0.38	1
T19N-C	Nylon 6.6	Natural	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-40°F – 149°F (-40°C – 65°C)	0.020	0.51	1
T25N-C	Nylon 6.6	Natural	100	30.5	3/16 – 2	4.8 – 50.8	0.25	6.4	-40°F – 149°F (-40°C – 65°C)	0.023	0.58	1
T38N-C	Nylon 6.6	Natural	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 149°F (-40°C – 65°C)	0.030	0.76	1
T50N-C	Nylon 6.6	Natural	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 149°F (-40°C – 65°C)	0.032	0.81	1
T62N-C	Nylon 6.6	Natural	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 149°F (-40°C – 65°C)	0.035	0.89	1
T75N-C	Nylon 6.6	Natural	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 149°F (-40°C – 65°C)	0.040	1.02	1
T100N-C	Nylon 6.6	Natural	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-40°F – 149°F (-40°C – 65°C)	0.045	1.14	1
T12N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-40°F – 149°F (-40°C – 65°C)	0.015	0.38	1
T19N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-40°F – 149°F (-40°C – 65°C)	0.020	0.51	1
T25N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	3/16 – 2	4.8 – 50.4	0.25	6.4	-40°F – 149°F (-40°C – 65°C)	0.023	0.58	1
T38N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 149°F (-40°C – 65°C)	0.030	0.76	1
T50N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 149°F (-40°C – 65°C)	0.032	0.81	1
T62N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-40°F – 149°F (-40°C – 65°C)	0.035	0.89	1
T75N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	5/8 – 5	15.9 – 127.0	0.75	19.1	-40°F – 149°F (-40°C – 65°C)	0.040	1.02	1
T100N-C0	Weather Resistant Nylon 6.6	Black	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-40°F – 149°F (-40°C – 65°C)	0.045	1.14	1
T38P-C0	Weather Resistant Polypropylene	Black	100	30.5	5/16 – 3	7.9 – 76.2	0.38	9.5	-40°F – 239°F (-40°C – 115°C)	0.030	0.76	1
T50P-C0	Weather Resistant Polypropylene	Black	100	30.5	3/8 – 4	9.5 – 101.6	0.50	12.7	-40°F – 239°F (-40°C – 115°C)	0.030	0.76	1
T100P-C0	Weather Resistant Polypropylene	Black	100	30.5	7/8 – 6	22.2 – 152.4	1.00	25.4	-40°F – 239°F (-40°C – 115°C)	0.030	0.76	1
T12T-C	TFE^	Natural	100	30.5	1/16 – 1/2	1.6 – 12.7	0.12	3.2	-454°F – 500°F (-270°C – 260°C)	0.020	0.51	1
T19T-C	TFE^	Natural	100	30.5	1/8 – 1	3.2 – 25.4	0.19	4.8	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T25T-L	TFE^	Natural	50	15.2	3/16 – 2	4.8 – 50.8	0.25	6.4	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T25T-L0	TFE^	Black	50	15.2	3/16 – 2	4.8 – 50.8	0.25	6.4	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T38T-L	TFE^	Natural	50	15.2	5/16 – 3	7.9 – 76.2	0.38	9.5	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T50T-Q	TFE^	Natural	25	7.6	3/8 – 4	9.5 – 101.6	0.50	12.7	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T62T-Q	TFE^	Natural	25	7.6	1/2 – 4 1/2	12.7 – 114.3	0.62	15.9	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T75T-X	TFE^	Natural	10	3.1	5/8 – 5	15.9 – 127.0	0.75	19.1	-454°F – 500°F (-270°C – 260°C)	0.030	0.76	1
T100T-X	TFE^	Natural	10	3.1	7/8 – 6	22.2 – 152.4	1.00	25.4	-454°F – 500°F (-270°C – 260°C)	0.040	1.02	1

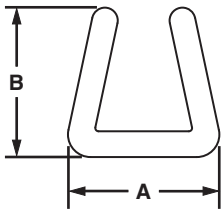
*Flame retardant products are manufactured from a material that is rated UL 94V-0.
‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.
^TFE is Polytetrafluorethylene material.

Part Number System for Grommet Edging

GEE	36	F	–	A	–	C	0
Type	**Max. Panel Thickness**	**Material**		**Adhesive**		**Package Size**	**Color Suffix**
GE = Grommet Edging Strips GEE = Slotted Grommet Edging GES = Solid Grommet Edging	36 = 0.036" thickness 62 = 0.062" thickness 99 = 0.099" thickness 144 = 0.144" thickness 189 = 0.189" thickness	F = Polyethylene N = Nylon 6.6 FR = Flame Retardant Polyethylene		A = Adhesive Lined Leave Blank = Non-Adhesive		Q = 25' L = 50' C = 100'	0 = Weather Resistant Black Leave Blank = Natural

Grommet Edging

- Use slotted product on irregularly shaped and round panel holes
- Solid product is used only on straight edges
- Provided in 0.030" (0.8mm) thick material making it highly flexible



Part Number	Width A In.	Width A mm	Height B In.	Height B mm	Panel Thickness Range In.	Panel Thickness Range mm	Material	Color	Temperature Range	Std. Pkg. Qty.‡
Slotted										
GEE36F-C	0.11	2.7	0.12	3.0	0.026 – 0.036	0.7 – 0.9	Polyethylene	Natural	-40°F – 122°F (-40°C – 50°C)	1
GEE36F-C0	0.11	2.7	0.12	3.0	0.026 – 0.036	0.7 – 0.9	Weather Resistant Polyethylene	Black		1
GEE62F-C	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Polyethylene	Natural		1
GEE62F-C0	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Weather Resistant Polyethylene	Black		1
GEE99F-C	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Polyethylene	Natural		1
GEE99F-C0	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Weather Resistant Polyethylene	Black		1
GEE144F-C	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Polyethylene	Natural		1
GEE144F-C0	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Weather Resistant Polyethylene	Black		1

‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Order number of pieces required, in multiples of Standard Package Quantity.

Grommet Edging (continued)

Part Number	Width A In.	Width A mm	Height B In.	Height B mm	Panel Thickness Range In.	Panel Thickness Range mm	Material	Color	Temperature Range	Std. Pkg. Qty.‡
Solid – Use on straight edges only										
GES36F-C	0.11	2.7	0.12	3.0	0.026 – 0.036	0.7 – 0.9	Polyethylene	Natural	-40°F – 122°F (-40°C – 50°C)	1
GES36F-C0	0.11	2.7	0.12	3.0	0.026 – 0.036	0.7 – 0.9	Weather Resistant Polyethylene	Black		1
GES62F-C	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Polyethylene	Natural		1
GES62F-C0	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Weather Resistant Polyethylene	Black		1
GES99F-C	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Polyethylene	Natural		1
GES99F-C0	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Weather Resistant Polyethylene	Black		1
GES144F-C	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Polyethylene	Natural		1
GES144F-C0	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Weather Resistant Polyethylene	Black		1
GES189F-C	0.30	7.6	0.30	7.6	0.144 – 0.189	3.7 – 4.8	Polyethylene	Natural		1
GES189F-C0	0.30	7.6	0.30	7.6	0.144 – 0.189	3.7 – 4.8	Weather Resistant Polyethylene	Black		1
Slotted Adhesive Lined										
GEE62F-A-C	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Polyethylene	Natural	-40°F – 122°F (-40°C – 50°C)	1
GEE62F-A-C0	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Weather Resistant Polyethylene	Black		1
GEE99F-A-C	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Polyethylene	Natural		1
GEE99F-A-C0	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Weather Resistant Polyethylene	Black		1
GEE144F-A-C	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Polyethylene	Natural		1
GEE144F-A-C0	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Weather Resistant Polyethylene	Black		1
Solid Adhesive Lined – Use on straight edges only										
GES62F-A-C	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Polyethylene	Natural	-40°F – 122°F (-40°C – 50°C)	1
GES62F-A-C0	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Weather Resistant Polyethylene	Black		1
GES99F-A-C	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Polyethylene	Natural		1
GES99F-A-C0	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Weather Resistant Polyethylene	Black		1
GES144F-A-C	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Polyethylene	Natural		1
GES144F-A-C0	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Weather Resistant Polyethylene	Black		1
Slotted Flame Retardant										
GEE36FR-CY	0.11	2.7	0.12	3.0	0.026 – 0.036	0.7 – 0.9	Flame Retardant Polyethylene	Natural	-4°F – 167°F (-20°C – 75°C)	1
GEE62FR-CY	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Flame Retardant Polyethylene	Natural		1
GEE99FR-CY	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Flame Retardant Polyethylene	Natural		1
GEE144FR-CY	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Flame Retardant Polyethylene	Natural		1

‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Table continues on page C3.10

Grommet Edging (continued)

Part Number	Width A In.	Width A mm	Height B In.	Height B mm	Panel Thickness Range In.	Panel Thickness Range mm	Material	Color	Temperature Range	Std. Pkg. Qty.‡
Solid Flame Retardant – Used on straight edges only										
GES36FR-CY	0.11	2.7	0.12	3.0	0.026 – 0.036	0.7 – 0.9	Flame Retardant Polyethylene	Natural	-4°F – 167°F (-20°C – 75°C)	1
GES62FR-CY	0.13	3.3	0.16	4.1	0.036 – 0.062	0.9 – 1.6	Flame Retardant Polyethylene	Natural		1
GES99FR-CY	0.17	4.3	0.19	4.7	0.062 – 0.099	1.6 – 2.5	Flame Retardant Polyethylene	Natural		1
GES144FR-CY	0.21	5.4	0.22	5.6	0.099 – 0.144	2.5 – 3.7	Flame Retardant Polyethylene	Natural		1
Slotted Nylon										
GEE47N-C	0.13	3.2	0.14	3.6	0.039 – 0.055	1.0 – 1.4	Nylon 6	Natural	-40°F – 149°F (-40°C – 65°C)	1
GEE55N-C	0.13	3.4	0.14	3.6	0.047 – 0.063	1.2 – 1.6	Nylon 6	Natural		1
GEE71N-C	0.15	3.8	0.14	3.6	0.063 – 0.079	1.6 – 2.0	Nylon 6	Natural		1
GEE98N-C	0.18	4.6	0.14	3.6	0.091 – 0.106	2.3 – 2.7	Nylon 6	Natural		1
GEE134N-C	0.21	5.3	0.14	3.6	0.126 – 0.142	3.2 – 3.6	Nylon 6	Natural		1
Military Standard MS21266 in 12 3/4" Lengths										
GE52-C	0.15	3.8	0.16	3.9	0.015 – 0.052	0.4 – 1.3	Nylon 6.6	Natural	-40°F – 149°F (-40°C – 65°C)	100
GE52-C69*	0.15	3.8	0.16	3.9	0.015 – 0.052	0.4 – 1.3	Flame Retardant Nylon 6.6	Natural		100
GE85-C	0.18	4.5	0.16	3.9	0.052 – 0.085	1.3 – 2.2	Nylon 6.6	Natural		100
GE85-C69*	0.18	4.5	0.16	3.9	0.052 – 0.085	1.3 – 2.2	Flame Retardant Nylon 6.6	Natural		100
GE128-C	0.22	5.6	0.16	3.9	0.085 – 0.128	2.2 – 3.3	Nylon 6.6	Natural		100
GE128-C69*	0.22	5.6	0.16	3.9	0.085 – 0.128	2.2 – 3.3	Flame Retardant Nylon 6.6	Natural		100
GE192-L	0.33	8.3	0.23	5.8	0.128 – 0.192	3.3 – 4.9	Nylon 6.6	Natural		50
GE192-L69*	0.33	8.3	0.23	5.8	0.128 – 0.192	3.3 – 4.9	Flame Retardant Nylon 6.6	Natural		50
GE255-L	0.39	9.8	0.24	6.1	0.192 – 0.255	4.9 – 6.5	Nylon 6.6	Natural		50
GE318-L	0.46	11.3	0.26	6.5	0.255 – 0.318	6.5 – 8.1	Nylon 6.6	Natural		50
GE380-Q	0.52	13.1	0.26	6.5	0.318 – 0.380	8.1 – 9.7	Nylon 6.6	Natural		25
GE510-Q	0.64	16.3	0.26	6.5	0.380 – 0.510	9.7 – 13.0	Nylon 6.6	Natural		25

‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.
*This material is not listed under Military Standard MS21266.

Order number of reels required, in multiples of Standard Package Quantity.

Part Number System for Corrugated Loom Tubing

CLT – **100** – **N** – **C** – **630**

Type
CLT = Slit Wall
CLTS = Solid Wall

Bundle Diameter
25 = 1/4"
35 = 5/16"
38 = 3/8"
50 = 1/2"
62 = 5/8"
75 = 3/4"
100 = 1"
125 = 1 1/4"
150 = 1 1/2"
188 = 1 7/8"

Material
N = Heat Stabilized Nylon
F = Polyethylene

Package Size
X = 10'
L = 50'
C = 100'
T = 200'
D = 500'
.75M = 750'
125M = 1,250'
2M = 2,000'
2.5M = 2,500'
4M = 4,000'
5M = 5,000'
7M = 7,000'
10M = 10,000'

Color Suffix
630 = Heat Stabilized Black Nylon 6
20 = Black Polyethylene
3 = Orange Polyethylene
4 = Yellow Polyethylene

Corrugated Loom Tubing – Slit

- Provides protection for cables
- Packaged on a reel for easy handling and dispensing of product
- For indoor use only
- Available in Nylon or Polyethylene, this product features a lengthwise slit which makes it easy to install onto a bundle of wires or a pre-assembled harness assembly
- Crush, impact and abrasion resistant

Part Number	Material	Color	Length Per Reel		Inside Diameter		Outside Diameter		Temperature Range	Std. Pkg. Qty.*
			Ft.	m	In.	mm	In.	mm		
Slit Wall										
CLT25F-C3	Polyethylene	Orange	100	30.5	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLT25F-C4	Polyethylene	Yellow	100	30.5	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLT25F-C20	Polyethylene	Black	100	30.5	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLT25F-10M20	Polyethylene	Black	10,000	3048.0	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLT35F-C3	Polyethylene	Orange	100	30.5	0.35	8.9	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	1
CLT35F-C4	Polyethylene	Yellow	100	30.5	0.35	8.9	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	1
CLT35F-C20	Polyethylene	Black	100	30.5	0.35	8.9	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	1
CLT35F-7M20	Polyethylene	Black	7,000	2133.6	0.35	8.9	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	1
CLT38F-C3	Polyethylene	Orange	100	30.5	0.42	10.5	0.56	14.1	-40°F – 122°F (-40°C – 50°C)	1
CLT38F-C4	Polyethylene	Yellow	100	30.5	0.42	10.5	0.56	14.1	-40°F – 122°F (-40°C – 50°C)	1
CLT38F-C20	Polyethylene	Black	100	30.5	0.42	10.5	0.56	14.1	-40°F – 122°F (-40°C – 50°C)	1
CLT38F-5M20	Polyethylene	Black	5,000	1524.0	0.42	10.5	0.56	14.1	-40°F – 122°F (-40°C – 50°C)	1
CLT50F-C3	Polyethylene	Orange	100	30.5	0.51	12.8	0.67	17.0	-40°F – 122°F (-40°C – 50°C)	1
CLT50F-C4	Polyethylene	Yellow	100	30.5	0.51	12.8	0.67	17.0	-40°F – 122°F (-40°C – 50°C)	1
CLT50F-C20	Polyethylene	Black	100	30.5	0.51	12.8	0.67	17.0	-40°F – 122°F (-40°C – 50°C)	1
CLT50F-4M20	Polyethylene	Black	4,000	1219.2	0.51	12.8	0.67	17.0	-40°F – 122°F (-40°C – 50°C)	1
CLT62F-C3	Polyethylene	Orange	100	30.5	0.65	16.5	0.82	20.7	-40°F – 122°F (-40°C – 50°C)	1
CLT62F-C4	Polyethylene	Yellow	100	30.5	0.65	16.5	0.82	20.7	-40°F – 122°F (-40°C – 50°C)	1
CLT62F-C20	Polyethylene	Black	100	30.5	0.65	16.5	0.82	20.7	-40°F – 122°F (-40°C – 50°C)	1
CLT62F-2.5M20	Polyethylene	Black	2,500	762.0	0.65	16.5	0.82	20.7	-40°F – 122°F (-40°C – 50°C)	1
CLT75F-C3	Polyethylene	Orange	100	30.5	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1

*Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Table continues on page C3.12

Order number of reels required, in multiples of Standard Package Quantity.

Corrugated Loom Tubing – Slit (continued)

Part Number	Material	Color	Length Per Reel		Inside Diameter		Outside Diameter		Temperature Range	Std. Pkg. Qty.*
			Ft.	m	In.	mm	In.	mm		
CLT75F-C4	Polyethylene	Yellow	100	30.5	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1
CLT75F-C20	Polyethylene	Black	100	30.5	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1
CLT75F-2M20	Polyethylene	Black	2,000	609.6	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1
CLT100F-X4	Polyethylene	Yellow	10	3.1	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLT100F-C3	Polyethylene	Orange	100	30.5	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLT100F-C4	Polyethylene	Yellow	100	30.5	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLT100F-C20	Polyethylene	Black	100	30.5	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLT100F-125M20	Polyethylene	Black	1,250	381.0	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLT125F-L3	Polyethylene	Orange	50	15.2	1.29	32.8	1.50	38.1	-40°F – 122°F (-40°C – 50°C)	1
CLT125F-L4	Polyethylene	Yellow	50	15.2	1.29	32.8	1.50	38.1	-40°F – 122°F (-40°C – 50°C)	1
CLT125F-L20	Polyethylene	Black	50	15.2	1.29	32.8	1.50	38.1	-40°F – 122°F (-40°C – 50°C)	1
CLT125F-.75M20	Polyethylene	Black	750	228.6	1.29	32.8	1.50	38.1	-40°F – 122°F (-40°C – 50°C)	1
CLT150F-X3	Polyethylene	Orange	10	3.1	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLT150F-X4	Polyethylene	Yellow	10	3.1	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLT150F-T20	Polyethylene	Black	200	61.0	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLT150F-D3	Polyethylene	Orange	500	152.4	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLT150F-D4	Polyethylene	Yellow	500	152.4	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLT150F-D20	Polyethylene	Black	500	152.4	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLT188F-X3	Polyethylene	Orange	10	3.1	1.88	47.8	2.17	55.1	-40°F – 122°F (-40°C – 50°C)	1
CLT188F-X4	Polyethylene	Yellow	10	3.1	1.88	47.8	2.17	55.1	-40°F – 122°F (-40°C – 50°C)	1
CLT188F-X20	Polyethylene	Black	10	3.1	1.88	47.8	2.17	55.1	-40°F – 122°F (-40°C – 50°C)	1
Solid Wall										
CLTS25F-C	Polyethylene	Black	100	30.5	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLTS25F-C3	Polyethylene	Orange	100	30.5	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLTS25F-10M	Polyethylene	Black	10,000	3048.0	0.28	7.0	0.40	10.1	-40°F – 122°F (-40°C – 50°C)	1
CLTS35F-C	Polyethylene	Black	100	30.5	0.35	8.9	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS35F-C3	Polyethylene	Orange	100	30.5	0.35	8.9	0.50	12.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS38F-C	Polyethylene	Black	100	30.5	0.42	10.5	0.56	14.1	-40°F – 122°F (-40°C – 50°C)	1
CLTS38F-C3	Polyethylene	Orange	100	30.5	0.42	10.5	0.56	14.1	-40°F – 122°F (-40°C – 50°C)	1
CLTS50F-C	Polyethylene	Black	100	30.5	0.51	12.8	0.67	17.0	-40°F – 122°F (-40°C – 50°C)	1
CLTS50F-C3	Polyethylene	Orange	100	30.5	0.51	12.8	0.67	17.0	-40°F – 122°F (-40°C – 50°C)	1
CLTS62F-C	Polyethylene	Black	100	30.5	0.65	16.5	0.82	20.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS62F-C3	Polyethylene	Orange	100	30.5	0.65	16.5	0.82	20.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS75F-C	Polyethylene	Black	100	30.5	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1
CLTS75F-C3	Polyethylene	Orange	100	30.5	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1
CLTS75F-2M	Polyethylene	Black	2,000	609.6	0.76	19.3	0.94	23.8	-40°F – 122°F (-40°C – 50°C)	1
CLTS100F-C	Polyethylene	Black	100	30.5	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS100F-C3	Polyethylene	Orange	100	30.5	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS100F-1.25M	Polyethylene	Black	1,250	381.0	0.92	23.2	1.09	27.7	-40°F – 122°F (-40°C – 50°C)	1
CLTS150F-D	Polyethylene	Black	500	152.4	1.48	37.6	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1
CLTS150F-D3	Polyethylene	Orange	500	152.4	1.48	39.1	1.73	43.9	-40°F – 122°F (-40°C – 50°C)	1

*Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Order number of reels required, in multiples of Standard Package Quantity.

Corrugated Loom Tubing – Slit (continued)

Part Number	Material	Color	Length Per Reel		Inside Diameter		Outside Diameter		Temperature Range	Std. Pkg. Qty.*
			Ft.	m	In.	mm	In.	mm		
Nylon Slit										
CLT25N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.28	7.0	0.40	10.1	-40°F – 230°F (-40°C – 110°C)	1
CLT25N-10M630	Heat Stabilized Nylon 6	Black	10,000	3048.0	0.28	7.0	0.40	10.1	-40°F – 230°F (-40°C – 110°C)	1
CLT35N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.35	8.9	0.50	12.7	-40°F – 230°F (-40°C – 110°C)	1
CLT38N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.42	10.5	0.56	14.1	-40°F – 230°F (-40°C – 110°C)	1
CLT38N-5M630	Heat Stabilized Nylon 6	Black	5,000	1524.0	0.42	10.5	0.56	14.1	-40°F – 230°F (-40°C – 110°C)	1
CLT50N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.51	12.8	0.67	17.0	-40°F – 230°F (-40°C – 110°C)	1
CLT50N-4M630	Heat Stabilized Nylon 6	Black	4,000	1219.2	0.51	12.8	0.67	17.0	-40°F – 230°F (-40°C – 110°C)	1
CLT62N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.65	16.5	0.82	20.7	-40°F – 230°F (-40°C – 110°C)	1
CLT62N-2.5M630	Heat Stabilized Nylon 6	Black	2,500	762.0	0.65	16.5	0.82	20.7	-40°F – 230°F (-40°C – 110°C)	1
CLT75N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.76	19.3	0.94	23.8	-40°F – 230°F (-40°C – 110°C)	1
CLT75N-2M630	Heat Stabilized Nylon 6	Black	2,000	609.6	0.76	19.3	0.94	23.8	-40°F – 230°F (-40°C – 110°C)	1
CLT100N-C630	Heat Stabilized Nylon 6	Black	100	30.5	0.92	23.2	1.09	27.7	-40°F – 230°F (-40°C – 110°C)	1
CLT100N-125M630	Heat Stabilized Nylon 6	Black	1,250	381.0	0.92	23.2	1.09	27.7	-40°F – 230°F (-40°C – 110°C)	1
CLT125N-L630	Heat Stabilized Nylon 6	Black	50	15.2	1.29	32.8	1.50	38.1	-40°F – 230°F (-40°C – 110°C)	1
CLT125N-.75M630	Heat Stabilized Nylon 6	Black	750	228.6	1.29	32.8	1.50	38.1	-40°F – 230°F (-40°C – 110°C)	1
CLT150N-D630	Heat Stabilized Nylon 6	Black	500	152.4	1.48	37.6	1.73	43.9	-40°F – 230°F (-40°C – 110°C)	1
CLT188N-6C630	Heat Stabilized Nylon 6	Black	600	182.9	1.88	47.8	2.17	55.1	-40°F – 230°F (-40°C – 110°C)	1
Nylon Solid										
CLTS25N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.28	7.0	0.40	10.1	-40°F – 230°F (-40°C – 110°C)	1
CLTS25N-10M	Heat Stabilized Nylon 6	Black	10,000	3048.0	0.28	7.0	0.40	10.1	-40°F – 230°F (-40°C – 110°C)	1
CLTS35N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.35	8.9	0.50	12.7	-40°F – 230°F (-40°C – 110°C)	1
CLTS38N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.42	10.5	0.56	14.1	-40°F – 230°F (-40°C – 110°C)	1
CLTS50N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.51	12.8	0.67	17.0	-40°F – 230°F (-40°C – 110°C)	1
CLTS62N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.65	16.5	0.82	20.7	-40°F – 230°F (-40°C – 110°C)	1
CLTS75N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.76	19.3	0.94	23.8	-40°F – 230°F (-40°C – 110°C)	1
CLTS75N-2M	Heat Stabilized Nylon 6	Black	2,000	609.6	0.76	19.3	0.94	23.8	-40°F – 230°F (-40°C – 110°C)	1
CLTS100N-C	Heat Stabilized Nylon 6	Black	100	30.5	0.92	23.2	1.09	27.7	-40°F – 230°F (-40°C – 110°C)	1
CLTS125N-L	Heat Stabilized Nylon 6	Black	50	15.2	1.29	32.8	1.50	38.1	-40°F – 230°F (-40°C – 110°C)	1

*Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Corrugated Loom Tubing Fittings

- Provide a secure way to join CLT at junctions and breakouts while improving the appearance of wire harnesses
- Color: Black
- Material: Polypropylene

Part Number	Branch Diameter		Trunk Diameter		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm		
CF382538F-Q	0.38	9.5	0.25	6.4	25	100
CF502550F-Q	0.50	12.7	0.25	6.4	25	100
CF503850F-Q	0.50	12.7	0.38	9.5	25	100
CF752575F-Q	0.75	19.1	0.25	6.4	25	100
CF753875F-Q	0.75	19.1	0.38	9.5	25	100

Part Number System for Braided Expandable Sleeving

SE – **25** – **PFR** – **M** – **R** – **0**

Type

SE = Sleeving Expandable

Nominal I.D. Size

12 = 1/8" (3.2mm)
25 = 1/4" (6.4mm)
38 = 3/8" (9.5mm)
50 = 1/2" (12.7mm)
75 = 3/4" (19.1mm)
125 = 1 1/4" (31.8mm)
150 = 1 1/2" (38.1mm)
175 = 1 3/4" (44.5mm)

Material

P = Polyethylene Terephthalate (PET)
PFR = Polyethylene Terephthalate (PET) Flame Retardant
PSC = Fray Resistant Polyethylene Terephthalate (PET)

Package Size

L = 50' (15.2m)
C = 100' (30.5m)
T = 200' (61.0m)
D = 500' (152.4m)
M = 1000' (304.8m)

R = Reel

Color Suffix

0 = Black
8 = Gray
10 = White

Order number of reels required, in multiples of Standard Package Quantity.

Braided Expandable Sleeving – Polyethylene Terephthalate (PET)

- Provides continuous abrasion protection for wires, cables, hoses and tubing
- Highly flexible open weave will not trap heat or humidity
- Allows for use with irregular shapes
- Lightweight, durable protection
- Rated for use up to 257°F (125°C)
- Compliant with U.S. and European passenger rail standards

Part Number	Color	Nominal I.D.		Nominal Diameter Range		Length per reel		Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm	In.	mm	Ft.	m		
SE12P-TR0	Black	0.12	3.2	0.094 – 0.250	2.4 – 6.4	200	61.0	1	4
SE12P-TR8	Gray	0.12	3.2	0.094 – 0.250	2.4 – 6.4	200	61.0	1	4
SE12P-MR0	Black	0.12	3.2	0.094 – 0.250	2.4 – 6.4	1000	304.8	1	2
SE12P-MR8	Gray	0.12	3.2	0.094 – 0.250	2.4 – 6.4	1000	304.8	1	2
SE12P-MR10	White	0.12	3.2	0.094 – 0.250	2.4 – 6.4	1000	304.8	1	2
SE25P-TR0	Black	0.25	6.4	0.125 – 0.375	3.2 – 9.5	200	61.0	1	4
SE25P-TR8	Gray	0.25	6.4	0.125 – 0.375	3.2 – 9.5	200	61.0	1	4
SE25P-MR0	Black	0.25	6.4	0.125 – 0.375	3.2 – 9.5	1000	304.8	1	2
SE25P-MR8	Gray	0.25	6.4	0.125 – 0.375	3.2 – 9.5	1000	304.8	1	2
SE25P-MR10	White	0.25	6.4	0.125 – 0.375	3.2 – 9.5	1000	304.8	1	2
SE38P-TR0	Black	0.38	9.5	0.188 – 0.500	4.8 – 15.9	200	61.0	1	4
SE38P-TR8	Gray	0.38	9.5	0.188 – 0.500	4.8 – 15.9	200	61.0	1	4
SE38P-MR0	Black	0.38	9.5	0.188 – 0.500	4.8 – 15.9	1000	304.8	1	2
SE38P-MR8	Gray	0.38	9.5	0.188 – 0.500	4.8 – 15.9	1000	304.8	1	2
SE38P-MR10	White	0.38	9.5	0.188 – 0.500	4.8 – 15.9	1000	304.8	1	2
SE50P-CR0	Black	0.50	12.7	0.250 – 0.750	6.4 – 19.1	100	30.5	1	4
SE50P-CR8	Gray	0.50	12.7	0.250 – 0.750	6.4 – 19.1	100	30.5	1	4
SE50P-DR0	Black	0.50	12.7	0.250 – 0.750	6.4 – 19.1	500	152.4	1	2
SE50P-DR8	Gray	0.50	12.7	0.250 – 0.750	6.4 – 19.1	500	152.4	1	2
SE50P-DR10	White	0.50	12.7	0.250 – 0.750	6.4 – 19.1	500	152.4	1	2
SE75P-CR0	Black	0.75	19.1	0.500 – 1.25	12.7 – 31.8	100	30.5	1	4
SE75P-CR8	Gray	0.75	19.1	0.500 – 1.25	12.7 – 31.8	100	30.5	1	4
SE75P-DR0	Black	0.75	19.1	0.500 – 1.25	12.7 – 31.8	500	152.4	1	2
SE75P-DR8	Gray	0.75	19.1	0.500 – 1.25	12.7 – 31.8	500	152.4	1	2
SE75P-DR10	White	0.75	19.1	0.500 – 1.25	12.7 – 31.8	500	152.4	1	2
SE125P-LR0	Black	1.25	31.8	0.750 – 1.50	19.1 – 38.1	50	15.2	1	4
SE125P-LR8	Gray	1.25	31.8	0.750 – 1.50	19.1 – 38.1	50	15.2	1	4
SE125P-TR0	Black	1.25	31.8	0.750 – 1.50	19.1 – 38.1	200	61.0	1	2
SE125P-TR8	Gray	1.25	31.8	0.750 – 1.50	19.1 – 38.1	200	61.0	1	2
SE125P-TR10	White	1.25	31.8	0.750 – 1.50	19.1 – 38.1	200	61.0	1	2
SE150P-LR0	Black	1.50	38.1	1.00 – 2.13	25.4 – 54.0	50	15.2	1	4
SE150P-LR8	Gray	1.50	38.1	1.00 – 2.13	25.4 – 54.0	50	15.2	1	4
SE150P-TR0	Black	1.50	38.1	1.00 – 2.13	25.4 – 54.0	200	61.0	1	2
SE150P-TR8	Gray	1.50	38.1	1.00 – 2.13	25.4 – 54.0	200	61.0	1	2
SE150P-TR10	White	1.50	38.1	1.00 – 2.13	25.4 – 54.0	200	61.0	1	2
SE175P-TR0	Black	1.75	44.5	1.25 – 2.75	31.8 – 69.9	200	61.0	1	2

Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Braided Expandable Sleeving – Flame Retardant Polyethylene Terephthalate

- Provides continuous abrasion protection for wires, cables, hoses and tubing
- Highly flexible open weave will not trap heat or humidity
- Rated for use up to 257°F (125°C)
- Allows for use with irregular shapes
- Flammability: Meets UL 1441 VW-1
- Compliant with U.S. and European passenger rail standards

Part Number	Color	Nominal I.D.		Nominal Diameter Range		Length per reel		Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm	In.	mm	Ft.	m		
SE12PFR-TR0	Black	0.12	3.2	0.094 – 0.250	2.4 – 6.4	200	61.0	1	4
SE12PFR-MR0	Black	0.12	3.2	0.094 – 0.250	2.4 – 6.4	1000	304.8	1	2
SE12PFR-TR8	Gray	0.12	3.2	0.094 – 0.250	2.4 – 6.4	200	61.0	1	4
SE12PFR-MR8	Gray	0.12	3.2	0.094 – 0.250	2.4 – 6.4	1000	304.8	1	2
SE12PFR-MR10	White	0.12	3.2	0.094 – 0.250	2.4 – 6.4	1000	304.8	1	2
SE25PFR-TR0	Black	0.25	6.4	0.125 – 0.375	3.2 – 9.5	200	61.0	1	4
SE25PFR-MR0	Black	0.25	6.4	0.125 – 0.375	3.2 – 9.5	1000	304.8	1	2
SE25PFR-TR8	Gray	0.25	6.4	0.125 – 0.375	3.2 – 9.5	200	61.0	1	4
SE25PFR-MR8	Gray	0.25	6.4	0.125 – 0.375	3.2 – 9.5	1000	304.8	1	2
SE25PFR-MR10	White	0.25	6.4	0.125 – 0.375	3.2 – 9.5	1000	304.8	1	2
SE38PFR-MR0	Black	0.38	9.5	0.188 – 0.625	4.8 – 15.9	1000	304.8	1	2
SE38PFR-TR0	Black	0.38	9.5	0.188 – 0.625	4.8 – 15.9	200	61.0	1	4
SE38PFR-TR8	Gray	0.38	9.5	0.188 – 0.625	4.8 – 15.9	200	61.0	1	4
SE38PFR-MR8	Gray	0.38	9.5	0.188 – 0.500	4.8 – 12.7	1000	304.8	1	2
SE38PFR-MR10	White	0.38	9.5	0.188 – 0.500	4.8 – 12.7	1000	304.8	1	2
SE50PFR-CR0	Black	0.50	12.7	0.250 – 0.750	6.4 – 19.1	100	30.5	1	4
SE50PFR-CR8	Gray	0.50	12.7	0.250 – 0.750	6.4 – 19.1	100	30.5	1	4
SE50PFR-DR0	Black	0.50	12.7	0.250 – 0.750	6.4 – 19.1	500	152.4	1	2
SE50PFR-DR8	Gray	0.50	12.7	0.250 – 0.750	6.4 – 19.1	500	152.4	1	2
SE50PFR-DR10	White	0.50	12.7	0.250 – 0.750	6.4 – 19.1	500	152.4	1	2
SE75PFR-CR0	Black	0.75	19.1	0.500 – 1.25	12.7 – 31.8	100	30.5	1	4
SE75PFR-CR8	Gray	0.75	19.1	0.500 – 1.25	12.7 – 31.8	100	30.5	1	4
SE75PFR-DR0	Black	0.75	19.1	0.500 – 1.25	12.7 – 31.8	500	152.4	1	2
SE75PFR-DR8	Gray	0.75	19.1	0.500 – 1.25	12.7 – 31.8	500	152.4	1	2
SE75PFR-DR10	White	0.75	19.1	0.500 – 1.25	12.7 – 31.8	500	152.4	1	2
SE125PFR-LR0	Black	1.25	31.8	0.750 – 1.50	19.1 – 38.1	50	15.2	1	4
SE125PFR-LR8	Gray	1.25	31.8	0.750 – 1.50	19.1 – 38.1	50	15.2	1	4
SE125PFR-TR0	Black	1.25	31.8	0.750 – 1.50	19.1 – 38.1	200	61.0	1	2
SE125PFR-TR8	Gray	1.25	31.8	0.750 – 1.50	19.1 – 38.1	200	61.0	1	2
SE125PFR-TR10	White	1.25	31.8	0.750 – 1.50	19.1 – 38.1	200	61.0	1	2
SE150PFR-LR0	Black	1.50	38.1	1.00 – 2.13	25.4 – 54.0	50	15.2	1	4
SE150PFR-LR8	Gray	1.50	38.1	1.00 – 2.13	25.4 – 54.0	50	15.2	1	4
SE150PFR-TR0	Black	1.50	38.1	1.00 – 2.13	25.4 – 54.0	200	61.0	1	2
SE150PFR-TR8	Gray	1.50	38.1	1.00 – 2.13	25.4 – 54.0	200	61.0	1	2
SE150PFR-TR10	White	1.50	38.1	1.00 – 2.13	25.4 – 54.0	200	61.0	1	2
SE175PFR-TR0	Black	1.75	44.5	1.25 – 2.75	31.8 – 69.9	200	61.0	1	2

Tooling Head

- Sleeving cutter/end sealer blade – used with popular soldering guns to cut and seal sleeving

Part Number	Description	Std. Pkg. Qty
HKBS	For dual straight shank soldering guns with .500" spacing typical guns: WELLER Straight Shank Model 8200; WEN Model 199 or 100 (Replace tip holding screws with (2) screws included).	1

Order number of reels required, in multiples of Standard Package Quantity.

Fray Resistant Braided Expandable Sleeving

- Fray-resistant design resists fraying when cut with scissors
- Provides continuous abrasion protection resistance for wires, cables, and tubing
- For indoor use only
- Rated for use up to 257°F (125°C)
- Material: Polyethylene Terephthalate

Part Number	Color	Nominal I.D.		Nominal Diameter Range		Length Per Reel‡		Std. Pkg. Qty.	Std. Ctn. Qty.
		In.	mm	In.	mm	Ft.	m		
SE12PSC-TR0	Black	0.12	3.2	0.13 – 0.25	3.2 – 6.4	200	61.0	1	4
SE25PSC-TR0	Black	0.25	6.4	0.16 – 0.44	4.0 – 11.1	200	61.0	1	4
SE38PSC-TR0	Black	0.38	9.5	0.19 – 0.63	4.8 – 15.9	200	61.0	1	4
SE50PSC-CR0	Black	0.50	12.7	0.25 – 0.75	6.4 – 19.1	100	30.5	1	4
SE75PSC-CR0	Black	0.75	19.1	0.63 – 1.0	15.9 – 25.4	100	30.5	1	4
SE125PSC-LR0	Black	1.25	31.8	1.0 – 1.5	25.4 – 38.1	50	15.2	1	4
SE150PSC-LR0	Black	1.50	38.1	1.3 – 2.0	31.8 – 50.8	50	15.2	1	4

‡Reel packaging may contain splices. Contact Panduit Customer Service for further information.

Part Number System for Non-Shrink PVC Tubing

TV105 – 12 M

Type
TV105 = PVC Tubing

Nominal Size
12 = 12 AWG
6 = 6 AWG
3 = 3 AWG
1 = 1 AWG
0.38 = 3/8"
0.50 = 1/2"
0.75 = 3/4"
1.0 = 1"

Package Quantity
C = 100' (30.5m)
TL = 250' (76.2m)
D = 500' (152.4m)
M = 1000' (304.8m)

Color Suffix
Leave Blank = Clear
20 = Black

Non-Shrink PVC Tubing

- Provides insulation and protection for lead wires, wire harness assemblies, soldered joints and components in electrical and electronic equipment
- All purpose flexible and non-shrinkable
- Resistant to heat and moisture
- Flammability: Meets UL 224 VW-1
- Voltage rating: 300 V and 600 V
- ASTM D-922 Grade CFR
- MIL-I-631 Type F, Form U, Grade C- Class 1 Category 1
- Material: Polyvinyl chloride (PVC)
- UL oil resistant class 1 rating
- Continuous use temperature range: -4°F – 221°F (-20°C – 105°C)

Part Number	Color	Nominal Size	Length Per Reel		Max. Inside Diameter		Wall Thickness		Max. Voltage Rating	Std. Pkg. Qty.	Std. Ctn. Qty.
			Ft.	m	In	mm	In	mm			
TV105-12MY	Clear	12 AWG	1000	304.8	0.089	2.26	0.016	0.41	300 V	1	2
TV105-12M20Y	Black	12 AWG	1000	304.8	0.089	2.26	0.016	0.41	300 V	1	2
TV105-6MY	Clear	6 AWG	1000	304.8	0.178	4.52	0.020	0.51	300 V	1	2
TV105-6M20Y	Black	6 AWG	1000	304.8	0.178	4.52	0.020	0.51	300 V	1	2
TV105-3MY	Clear	3 AWG	1000	304.8	0.249	6.32	0.020	0.51	300 V	1	2
TV105-3M20Y	Black	3 AWG	1000	304.8	0.249	6.32	0.020	0.51	300 V	1	2
TV105-1MY	Clear	1 AWG	1000	304.8	0.311	7.89	0.020	0.51	300 V	1	—
TV105-1M20Y	Black	1 AWG	1000	304.8	0.311	7.89	0.020	0.51	300 V	1	—
TV105-.38DY	Clear	3/8	500	152.4	0.399	10.13	0.025	0.64	600 V	1	—
TV105-.38D20Y	Black	3/8	500	152.4	0.399	10.13	0.025	0.64	600 V	1	—
TV105-.50DY	Clear	1/2	500	152.4	0.524	13.30	0.025	0.64	600 V	1	—
TV105-.50D20Y	Black	1/2	500	152.4	0.524	13.30	0.025	0.64	600 V	1	—
TV105-.75TLY	Clear	3/4	250	76.2	0.786	19.96	0.035	0.89	600 V	1	—
TV105-.75TL20Y	Black	3/4	250	76.2	0.786	19.96	0.035	0.89	600 V	1	—
TV105-1.0CY	Clear	1	100	30.5	1.036	26.31	0.035	0.89	600 V	1	2
TV105-1.0C20Y	Black	1	100	30.5	1.036	26.31	0.035	0.89	600 V	1	2

Duct Seal – Sealing Compounds

- Seals irregular openings from air, dust, or water
- Non-hardening sealant that adheres to metal, masonry, wood or plastic
- Provides vibration dampening
- Safe and easy to use, non-corrosive, non-toxic, no asbestos, will not stain or harm hands, and no unpleasant odor.
- Dielectric strength: 200 V/Mil, Min .030" thick

Part Number	Description	Std. Pkg. Qty.
DS1	Duct seal (sealing compound) 1 lb. package	1
DS5	Duct seal (sealing compound) 5 lb. package	1

Order number of pieces required, in multiples of Standard Package Quantity.

Flammability Tests and Classification

Abrasion Protection Products Flammability Tests and Classifications

- A number of test procedures have been developed which can be used for the evaluation and comparison of various materials to support combustion
- Review the following classifications to find which category is designed to suit your abrasion and protection applications

UL 94 Vertical Burning Test

Test samples of material, with dimension 125 ± 5mm by 13.0 ± 5mm and provided in the minimum and maximum thickness of the intended end use product, are tested in an unconditioned (as manufactured) state and in a conditioned state (7 days at 168F°, 75°C). The test requires the placement of a precisely controlled flame under a vertically supported specimen for a 10 second period. The flame is removed and the duration of flaming is recorded. If the flame extinguishes, the specimen is immediately subjected to a second 10 second ignition period. Duration of flaming is again recorded. A piece of 100% cotton is placed under the specimen. Also observed and documented is if the sample drips flaming particles that ignite the cotton indicator below.

Materials Classification

Criteria Conditions	V-0	V-1	V-2
Afterflame time for each individual specimen t_1 or t_2	≤10s	≤30s	≤30s
Total Afterflame time for any condition set (t_1 plus t_2 for the 5 specimens)	≤50s	≤250s	≤250s
Afterflame plus afterglow time for each individual specimen after the second flame application ($t_2 + t_3$)	≤30s	≤60s	≤60s
Afterflame or afterglow of any specimen up to the holding clamp	No	No	No
Cotton indicator ignited by flaming particles or drops	No	No	Yes

t_1	Afterflame time after first flame application
t_2	Afterflame time after second flame application
t_3	Afterglow time after second flame application

MATERIALS CLASSIFIED UL 94 HB

- Specimens shall have a maximum burn rate of <1.5 in./min over 3 inches of thickness of .120 inches to .5 inches
- Specimens shall have a maximum burn rate of <30 in./min over 3 inches for a thickness less than .120 inches

UL 224 VERTICAL WIRE FLAME TEST

Samples of fully recovered tubing are placed over a length of fine spring steel music wire. The test requires the precise placement of a controlled flame that contacts the heat shrink tubing. The flame is applied in five 15 second intervals with a time period between applications. If the flame extinguishes immediately after the first flame removal, subsequent flame applications are made to the tubing. Duration of specimen flaming is noted. A piece of surgical cotton is placed under the specimen. If a flaming or glowing piece of tubing drips and ignites the cotton, this is also noted.

MATERIALS CLASSIFIED AS VW-1 SHALL:

- Not flame or glow longer than 60 seconds following any of the five applications of the flame
- Not ignite or damage more than 25% of kraft paper flag that is placed around the top of the tubing
- Not have any specimens which drip flaming particles and ignite the surgical cotton located 9 1/2 inches below the test specimen

Abrasion Protection Materials Technical Data

		Ratings and Approvals			Physical Properties				Chemical Resistance			
		UL Temperature Index	Flammability (UL 94)	Melting Temperature	Abrasion Resistance (Lower number is better)	Specific Gravity (D792)	Minimum Tensile @23°C (psi)	Water Absorption (Max. 24 hrs.)	Organic Solvents	Alkalies	Acids	Petro-Chemicals
SPIRAL WRAP	**Natural Polyethylene** Lowest cost material for indoor use up to 122°F. Natural is available in all sizes.	-40°F (-40°C) to 122°F (50°C)	HB	239°F (115°C)	22 mg	0.91 – 0.93	1400 (D368)	0.01%	Resistant below 140°F (60°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	Some Discoloration
	Weather Resistant Polyethylene This material has the same properties as natural polyethylene, and also has additives which allow it to resist the effects of ultraviolet light and acid rain in an outdoor environment. This product is available in black only.	-40°F (-40°C) to 122°F (50°C)	HB	239°F (115°C)	20 mg	0.93 – 1.09	2000 (D368)	0.03%	Resistant below 140°F (60°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	No Discoloration
	Fire Resistant Polyethylene* UL94-V-2 Rating This material is self extinguishing and passes the UL 94 flame retardant test with V-2 rating.	-40°F (-40°C) to 122°F (50°C)	V–2	239°F (115°C)	27 mg	1.00 – 1.30	1400 (D368)	0.02%	Resistant below 140°F (60°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	Some Discoloration
	Flame Retardant Polyethylene* UL94-V-0 Rating. This material is self extinguishing and passes the UL94 flame retardant test with a V-0 rating.	-4°F (-20°C) to 167°F (75°C)	V–0	270°F (132°C)	22 mg	1.23 – 1.37	1500 (D368)	0.02%	Resistant except to halogenated hydrocarbons	Resistant	Resistant	Resistant Some Discoloration
	Weather Resistant Polypropylene This material is resistant to chemical attack and is suitable for harsh environment applications requiring UV/weather resistance and withstanding high temperatures.	-40°F (-40°C) to 239°F (115°C)	HB	334°F (168°C)	—	0.902	4000 (D638)	0.1%	Resistant except to halogenated hydrocarbons	Resistant	Resistant	Resistant No Discoloration
	Nylon 6.6 Nylon is strong, durable material for indoor use up to 149°F. It offers a combination of lightweight, wide temperature range, and high abrasion resistance. This material is suitable for applications where heavy vibration or stress exists on the wiring or tubing.	-40°F (-40°C) to 149°F (65°C)	HB	505°F (263°C)	7 mg	1.13 – 1.15	12,400 (D368)	1.2%	Resistant except to halogenated hydrocarbons	Resistant	Not recommended	Resistant No Discoloration
	Weather Resistant Nylon 6.6 This material has the same properties as natural Nylon and also has additives which allow it to resist the effects of ultraviolet light in an outdoor environment. This product is available in black only.	-40°F (-40°C) to 149°F (65°C)	HB	505°F (263°C)	7 mg	1.13 – 1.15	12,400 (D368)	1.2%	Resistant except to halogenated hydrocarbons	Resistant	Not recommended	Resistant No Discoloration
	TFE‡* This material is a non-flammable, fluorocarbon resin material. Highly resistant to most chemicals, high resistance to UV exposure, wide operating temperature range, can be used in cryogenic applications. Color: Opaque to Translucent.	-454°F (-270°C) to 500°F (260°C)	V–0	648°F (342°C)	7 mg	2.13 – 2.22	3000 (D876)	0.01%	Resistant	Resistant	Resistant	Resistant No Discoloration
PAN-WRAP™	**Natural Polyethylene** Lowest cost material for indoor use up to 122°C. Natural is available in all sizes.	-40°F (-40°C) to 122°F (50°C)	HB	239°F (115°C)	22 mg	0.91 – 0.93	1400 (D638)	0.01%	Resistant below 140°F (60°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	Some Discoloration
	Flame Retardant Polyethylene* UL94-V-0 Rating. This material is self extinguishing and passes the UL94 flame retardant test with a V-0 rating.	-4°F (-20°C) to 167°F (75°C)	V–0	270°F (132°C)	22 mg	1.15	1500 (D876)	0.02%	Resistant except to halogenated hydrocarbons	Resistant	Resistant	Resistant Some Discoloration

Note: Typical operating temperature ranges are extended based on end use application and specific environment tests.
‡TFE is Polytetrafluoroethylene material.
*Contains halogens. Other materials are halogen free.

Order number of pieces required, in multiples of Standard Package Quantity.

Abrasion Protection Materials Technical Data (continued)

		Ratings and Approvals			Physical Properties				Chemical Resistance			
		UL Temperature Index	Flammability (UL 94)	Melting Temperature	Abrasion Resistance (Lower number is better)	Specific Gravity (D792)	Minimum Tensile @23°C (psi)	Water Absorption (Max. 24 hrs.)	Organic Solvents	Alkalies	Acids	Petro-Chemicals
SLEEVING	**Polyethylene Terephthalate (PET)** This material is a thermoplastic polyester material designed for indoor applications.It is rated for use up to 257°F and will tolerate short-term exposure up to 446°F. Colors: Black, White and Gray.	-94°F (-70°C) to 257°F (125°C)	HB	500°F (260°C)	—	1.39	100,000 (D876)	0.08%	Resistant to some solvents	Resistant to most weak bases	Resistant	Some Discoloration
SLEEVING	**Flame Retardant Polyethylene*** Terephthalate (PET) This material is a self-extinguishing thermoplastic polyester that can be used indoors. It is also rated for use up to 257°F and will tolerate short term exposure up to 446°F. It is provided with tracers to identify the flame retardant material.	-94°F (-70°C) to 257°F (125°C)	UL 1441 VW–1	469°F (243°C)	—	1.39	39,295 (D876)	0.08%	Resistant to some solvents	Resistant to most weak bases	Resistant	Resistant Some Discoloration
CLT	**Black Polypropylene** Lowest cost material is for use up to 122°F. Other colors may be available.	-40°F (-40°C) to 122°F(50°C)	HB	—	—	0.926 – 0.940	1500 (D638)	—	Resistant except to halogenated hydrocarbons	Resistant	Resistant	Resistant No Discoloration
CLT	**Nylon 6** Nylon is a strong, impact modified, heat stabilized, durable high abrasion resistant material.	-40°F (-40°C) to 230°F (110°C)	HB	410°F (211°C)	—	1.06 – 1.16	8000 (D638)	—	Resistant except to halogenated hydrocarbons	Resistant	Not recommended	Resistant No Discoloration
PVC	**PVC Non-Shrink Tubing*** This material provides insulation and protection for continuous use at temperature -4°F (-20°C) to 221°F(105°C).	-4°F (-20°C) to 221°F (105°C)	UL 224 VW-1	—	—	1.35	2500 (D876)	—	Resistant except to aromatic hydrocarbons, ketones and esters	Resistant	Resistant	Resistant No Discoloration
CLT FITTINGS	**Black Polyethylene** Lowest cost material is for use up to 122°F. Other colors may be available.	-40°F (-40°C) to 122°F (50°C)	UL94 HB	—	—	1.04	3,900 (D638)	0.02 – 0.03%	Resistant except to halogenated hydrocarbons	Resistant	Resistant except to oxidizing acids	Resistant Some Discoloration
GROMMET EDGING	**Natural Polyethylene** Lowest cost material for indoor use up to 122° F. Natural is available in all sizes.	-40°F (-40°C) to 122°F (50°C)	HB	239°F (115°C)	22 mg	0.91 – 1.09	1400 (D638)	—	Resistant below 140°F (60°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	Some Discoloration
GROMMET EDGING	**Weather Resistant Polyethylene** This material has the same properties as natural polyethylene, and also has additives which allow it to resist the effects of ultraviolet light and acid rain in an outdoor environment. This product is available in black only.	-40°F (-40°C) to 122°F (50°C)	HB	239°F (115°C)	20 mg	0.93 – 1.09	2000 (D638)	0.03%	Resistant below 140°F (60°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	No Discoloration
GROMMET EDGING	**Flame Retardant Polyethylene*** UL94-V-0 Rating This material is self-extinguishing and passes the UL94 flame retardant test with a V-0 rating.	-4°F (-20°C) to 167°F (75°C)	V–0	270°F (132°C)	22 mg	1.23 – 1.37	1200	0.02%	Resistant below 194°F (90°C) except to chlorinated solvents	Resistant	Resistant except to oxidizing acids	Some Discoloration
GROMMET EDGING	**Nylon** Nylon is strong, durable, self-extinguishing material for indoor use up to 149°F. It offers a combination of lightweight, wide temperature range, and high abrasion resistance. This material is suitable for applications where heavy vibration or stress exists on the wiring or tubing.	-40°F (-40°C) to 149°F (65°C)	V–2	491°F (255°C)	7 mg	1.03 – 1.15	12,400 (D638)	1.5%	Resistant except to phenols and formic acid	Resistant	Resistant to most weak acids	No Discoloration

Note: Typical operating temperature ranges are extended based on end use application and specific environment tests.
*Contains halogens. Other materials are halogen free.

Panduit Heat Shrink Tubing

Heat Shrink Tubing Quick Selection Guide

Quick reference for Panduit Heat Shrink for specific location applications

CHARACTERISTICS	DRY SHRINK HEAT SHRINK							DAMP SHRINK HEAT SHRINK				WET SHRINK HEAT SHRINK		
	HSTT	HSTTV	HSTTN	HSTTK	HSTTT	HSTTP	HSTTPN	HSTTVA	HSTTRA	HSTTA	HST4A	HST	HSEC	HSECFR
U.L. Listed												X		
UL Recognized	X‡	X		X		X	X				X	X		X
CSA Certified	X‡	X		X		X	X					X		
VW-1-Rated		X		X		X	X	X^	X^	X^	X^	X		
Very Flexible		X	X											
Flexible	X					X	X	X		X				
Semi-Rigid				X	X		X		X			X		
Thin Wall	X	X	X	X	X	X	X	X	X	X	X			
Thick Wall												X	X	X
Cross-Linked Material	X	X	X	X		X		X	X	X	X	X	X	X
Colors Available	X	X										X*		
Shrink Ratio	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2.5:1 min.	3:1	4:1	3:1	2.5:1	3:1
Flame Retardant	X‡	X	X	X	X	X	X	X	X	X	X	X		X
Adhesive Lined (Dual Wall)								X	X	X	X	X	X	X
Meets Military Specifications	X■	X■	X	X■	X		X	X■	X■	X■	X■	X		
Below Ground Application												X		
High Temp Applications (>250°F)				X	X									
Highly Chemical Resistant			X	X	X									
Low Coefficient of Friction					X									
Custom Cut Lengths	X	X	X	X	X	X		X	X	X		X		
Standard 6" pieces	X	X						X		X				
Standard 4' lengths	X	X		X	X			X	X	X	X	X		
Small 25' Reels	X	X	X			X								
Large Reels	X	X	X			X	X							
UV Resistant	X#	X#	X#	X	X	X#		X#	X#	X#	X#	X#	X#	X#
Shrink Temperature	194°F	194°F	275°F	275°F	644°F	212°F	212°F	248°F	257°F	248°F	248°F	248°F	248°F	248°F
Shelf Life (years)	5	5	5**	5	4	1	1	5	5	5	5	10	5	5
Found on Page...	C3.24–C3.27	C3.28–C3.31	C3.33	C3.35	C3.34	C3.32	C3.33	C3.35–C3.36	C3.37	C3.36	C3.37	C3.38	C3.39	C3.39

*Black/Red
**Excluding HSTTN300 which is 2 years.
‡Except Clear
^Outer Wall
■Material Performance only
#Black only

Order number of pieces required, in multiples of Standard Package Quantity.

Part Number System for Thin Wall Heat Shrink

HSTT – 12 – 48 – Q 10

Type

HSTT	= Thin Wall
HSTTV	= Thin Wall VW-1
HSTTN	= Thin Wall Neoprene
HSTTK	= Thin Wall PVDF KYNAR ▲
HSTTT	= Thin Wall TFE‡
HSTTP	= Thin Wall PVC
HSTTPN	= Crystal Clear Thin Wall PVC
HSTTVA	= Flexible Adhesive Lined
HSTTRA	= Semi-Rigid Adhesive Lined
HSTTA	= Thin Wall Adhesive Lined
HSTT4A	= 4:1 Thin Wall Adhesive Lined
HST	= Thick Wall Adhesive Lined
HSEC	= Heat Shrink End Caps Adhesive Lined
HSECFR	= Heat Shrink End Caps Flame Retardant Adhesive Lined

Expanded Diameter

05	= 3/64" (1.2mm)
06	= 1/16" (1.6mm)
09	= 3/32" (2.4mm)
12	= 1/8" (3.2mm)
19	= 3/16" (4.8mm)
25	= 1/4" (6.4mm)
38	= 3/8" (9.5mm)
50	= 1/2" (12.7mm)
75	= 3/4" (19.1mm)
100	= 1" (25.4mm)
150	= 1 1/2" (38.1mm)
200	= 2" (50.8mm)
300	= 3" (76.2mm)
400	= 4" (101.6mm)
0.4	= .40" (10.2mm)
0.5	= .47" (11.9mm)
0.8	= .80" (20.3mm)
1.0	= 1.0" (25.4mm)
1.1	= 1.1" (27.9mm)
1.5	= 1.5" (38.1mm)
2.0	= 2.0" (50.8mm)
3.0	= 3.0" (76.2mm)
4.0	= 4.0" (101.6mm)

Tube Length

3	= 3" (76.2mm)
6	= 6" (152.4mm)
9	= 9" (228.6mm)
12	= 12" (304.8mm)
48	= 48" (1.2m)
NONE	= REEL

Package Quantity

(If Tube Length Specified)

1	= 1 pc.
2	= 2 Pcs.
3	= 3 Pcs.
5	= 5 Pcs.
X	= 10 Pcs.
Q	= 25 Pcs.
LQ	= 75 Pcs.
CQ	= 125 Pcs.
T	= 200 Pcs.
TL	= 250 Pcs.
Y	= 6" Pcs.

Reels

(If No Tube Length Specified)

Q = 25' (7.6m)
L = 50' (15.2m)
C = 100' (30.5m)
T = 200' (61.0m)
D = 500' (152.4m)
M = 1000' (304.8m)

Color

NONE	= Black
C	= Clear
2	= Red
4	= Yellow
5	= Green
6	= Blue
10	= White
45	= Yellow/ Green

For Standard Packages containing 6" (152.4mm) lengths, refer to individual pages for complete part number offering.
Note: The above information is to be used as a guide. For specific part number offerings review individual pages for verification.
▲KYNAR is a registered trademark of Atofina Chemicals, Inc.
‡TFE is Polytetrafluoroethylene material.

HSTT Heat Shrink 4 Foot Pieces and Reels

- Applications include insulating, protecting, and color coding wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Flame retardant EXCEPT clear
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 1 (Colors) Class 2 (Clear)
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Black cross-linked Polyolefin

Part Number*	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length		Length per Reel		Std. Pkg. Qty.	Std Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m	Ft.	m		
HSTT05-48-Q	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	4	1.2	—	—	25	—
HSTT05-48-TL	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	4	1.2	—	—	250	—
HSTT05-C‡	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	—	—	100	30.5	1	10
HSTT05-M‡	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	—	—	1000	304.8	1	2
HSTT06-48-Q	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	4	1.2	—	—	25	—
HSTT06-48-TL	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	4	1.2	—	—	250	—
HSTT06-C‡	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	—	—	100	30.5	1	10
HSTT06-M‡	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	—	—	1000	304.8	1	2
HSTT09-48-Q	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	4	1.2	—	—	25	—
HSTT09-48-TL	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	4	1.2	—	—	250	—
HSTT09-C‡	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	—	—	100	30.5	1	10
HSTT09-M‡	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	—	—	1000	304.8	1	2
HSTT12-48-Q	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	4	1.2	—	—	25	—
HSTT12-48-TL	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	4	1.2	—	—	250	—
HSTT12-C‡	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	—	—	100	30.5	1	10
HSTT12-M‡	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	—	—	1000	304.8	1	2
HSTT19-48-Q	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	4	1.2	—	—	25	—
HSTT19-48-TL	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	4	1.2	—	—	250	—
HSTT19-C‡	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	—	—	100	30.5	1	10
HSTT19-M‡	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	—	—	1000	304.8	1	2
HSTT25-48-Q	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	4	1.2	—	—	25	—
HSTT25-48-TL	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	4	1.2	—	—	250	—
HSTT25-C‡	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	—	—	100	30.5	1	10
HSTT25-D‡	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	—	—	500	152.4	1	2
HSTT38-48-Q	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	4	1.2	—	—	25	—
HSTT38-48-TL	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	4	1.2	—	—	250	—
HSTT38-C‡	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	—	—	100	30.5	1	10
HSTT38-T‡	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	—	—	200	61.0	1	2

*For colors, add C (Clear), 2 (Red), 4 (Yellow), 45 (Yellow/Green), 5 (Green), 6 (Blue) and 10 (White) to end of part number.
‡Part sold per reel

Order number of pieces required, in multiples of Standard Package Quantity.

HSTT Heat Shrink 4 Foot Pieces and Reels (continued)

Part Number*	Nominal Diameter In.	Nominal Diameter mm	Min. Expanded I.D. In.	Min. Expanded I.D. mm	Max. Recovered I.D. In.	Max. Recovered I.D. mm	Nominal Recovered Wall Thickness In.	Nominal Recovered Wall Thickness mm	Length Ft.	Length m	Length per Reel Ft.	Length per Reel m	Std. Pkg. Qty.	Std Ctn. Qty.
HSTT50-48-5	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	4	1.2	—	—	5	—
HSTT50-48-Q	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	4	1.2	—	—	25	—
HSTT50-48-T	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	4	1.2	—	—	200	—
HSTT50-C‡	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	—	—	100	30.5	1	10
HSTT50-T‡	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	—	—	200	61.0	1	2
HSTT75-48-5	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	4	1.2	—	—	5	—
HSTT75-48-CQ	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	4	1.2	—	—	125	—
HSTT75-C‡	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	—	—	100	30.5	1	10
HSTT75-T‡	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	—	—	200	61.0	1	2
HSTT100-48-5	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	4	1.2	—	—	5	—
HSTT100-48-LQ	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	4	1.2	—	—	75	—
HSTT100-C‡	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	—	—	100	30.5	1	2
HSTT150-48-5	1.50	38.1	1.50	38.1	0.750	19.1	0.040	1.0	4	1.2	—	—	5	—
HSTT150-C‡	1.50	38.1	1.50	38.1	0.750	19.1	0.040	1.0	—	—	100	30.5	1	2
HSTT200-48-5	2.00	50.8	2.00	50.8	1.00	25.4	0.045	1.1	4	1.2	—	—	5	—
HSTT200-L‡	2.00	50.8	2.00	50.8	1.00	25.4	0.045	1.1	—	—	50	15.2	1	2
HSTT300-48-2	3.00	76.2	3.00	76.2	1.50	38.1	0.050	1.3	4	1.2	—	—	2	—
HSTT300-L‡	3.00	76.2	3.00	76.2	1.50	38.1	0.050	1.3	—	—	50	15.2	1	0
HSTT400-48-2	4.00	101.6	4.00	101.6	2.00	50.8	0.055	1.4	4	1.2	—	—	2	—
HSTT400-L‡	4.00	101.6	4.00	101.6	2.00	50.8	0.055	1.4	—	—	50	15.2	1	0

*For colors, add C (Clear), 2 (Red), 4 (Yellow), 45 (Yellow/Green), 5 (Green), 6 (Blue) and 10 (White) to end of part number.
‡Part sold per reel

HSTT Heat Shrink on 25 Foot Reels

- Applications include insulating and protecting wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Flame retardant EXCEPT clear
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 1 (Black) Class 2 (Clear)
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Cross-linked Polyolefin

Part Number*	Nominal Diameter In.	Nominal Diameter mm	Min. Expanded I.D. In.	Min. Expanded I.D. mm	Max. Recovered I.D. In.	Max. Recovered I.D. mm	Nominal Recovered Wall Thickness In.	Nominal Recovered Wall Thickness mm	Std. Pkg. Qty.	Std. Ctn. Qty.
HSTT05-Q	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1	10
HSTT06-Q	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1	10
HSTT09-Q	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1	10
HSTT12-Q	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1	10
HSTT19-Q	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1	10
HSTT25-Q	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	1	10
HSTT38-Q	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	1	10
HSTT50-Q	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	1	10
HSTT75-Q	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	1	10

* For clear, add C to end of part number.

Heat Shrink in 6 Inch Pieces; Black, Single Diameter

- Applications include insulating, protecting, and color coding wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Flame retardant
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 1
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Total No. Pcs.	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm			
HSTT06-Y	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	26	1	10
HSTT09-Y	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	24	1	10
HSTT12-Y	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	20	1	10
HSTT19-Y	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	18	1	10
HSTT25-Y	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	14	1	10
HSTT38-Y	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	12	1	10
HSTT50-Y	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	10	1	10
HSTT75-Y	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	8	1	10
HSTT100-Y	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	6	1	10

Heat Shrink in 6 Inch Pieces; Multi-Color, Single Diameter

- Applications include insulating, protecting, and color coding wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Flame retardant EXCEPT clear
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 1 (Colors) Class 2 (Clear)
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Cross-linked Polyolefin
- Colors include: clear, red, yellow, green, blue and white

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Total No. Pcs.	Black No. of Pieces	Each Color No. of Pieces	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm					
HSTT06-YK1	0.063	1.6	0.063	1.6	0.031	0.8	26	8	3	1	10
HSTT09-YK1	0.093	2.4	0.093	2.4	0.046	1.2	24	6	3	1	10
HSTT12-YK1	0.125	3.2	0.125	3.2	0.062	1.6	20	2	3	1	10
HSTT19-YK1	0.187	4.8	0.187	4.8	0.093	2.4	18	6	2	1	10
HSTT25-YK1	0.250	6.4	0.250	6.4	0.125	3.2	14	2	2	1	10
HSTT38-YK1	0.375	9.5	0.375	9.5	0.187	4.8	12	6	1	1	10
HSTT50-YK1	0.500	12.7	0.500	12.7	0.250	6.4	10	4	1	1	10
HSTT75-YK1	0.750	19.1	0.750	19.1	0.375	9.5	8	2	1	1	10
HSTT100-YK1	1.00	25.4	1.00	25.4	0.500	12.7	7	1	1	1	10

Order number of pieces required, in multiples of Standard Package Quantity.

Heat Shrink in 6 Inch Pieces; Black, Multiple Diameters

- Applications include insulating and protecting wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 1
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Cross-linked Polyolefin

Part Number	Nominal Diameter	No. of Pieces by Diameter	Total No. Pcs.	Std. Pkg. Qty.	Std. Ctn. Qty.
HSTT-YK1	Various – Smaller Range	Two pcs. each 1/8", 1/16", 3/32", 1/4", 3/16", 3/8", 1/2"	14	1	10
HSTT-YK2	Various – Larger Range	Two pcs. each 3/8", 1/2", 3/4", 1"	8	1	10

Heat Shrink in 6 Inch Pieces; Yellow/Green Stripe, Multiple Diameters

- Applications include insulating, protecting, and color coding wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Flame retardant
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 1
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Cross-linked Polyolefin

Part Number	Nominal Diameter	No. of Pieces by Diameter	Total No. Pcs.	Std. Pkg. Qty.	Std. Ctn. Qty.
HSTT-YK1-45	Various – Smaller Range	Two pcs. each 1/8", 3/16", 1/4", 3/8"	8	1	10
HSTT-YK2-45	Various – Larger Range	Two pcs. each 3/8", 1/2", 3/4"	6	1	10

HSTTV Heat Shrink 4 Foot Pieces

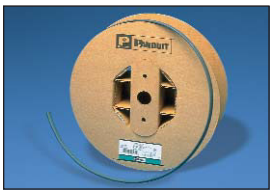
- Applications include insulating and protecting wires and cables
- Fast shrink time
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 3
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Black cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm		
HSTTV05-48-Q	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	25	—
HSTTV05-48-TL	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	250	—
HSTTV06-48-Q	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	25	—
HSTTV06-48-TL	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	250	—
HSTTV09-48-Q	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	25	—
HSTTV09-48-TL	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	250	—
HSTTV12-48-Q	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	25	—
HSTTV12-48-TL	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	250	—
HSTTV19-48-Q	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	25	—
HSTTV19-48-TL	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	250	—
HSTTV25-48-Q	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	25	—
HSTTV25-48-TL	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	250	—
HSTTV38-48-Q	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	25	—
HSTTV38-48-TL	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	250	—
HSTTV50-48-Q	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	25	—
HSTTV50-48-T	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	200	—
HSTTV75-48-5	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	5	—
HSTTV75-48-CQ	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	125	—
HSTTV100-48-5	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	5	—
HSTTV100-48-LQ	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	75	—
HSTTV150-48-5	1.50	38.1	1.50	38.1	0.750	19.1	0.040	1.0	5	—

Order number of pieces required, in multiples of Standard Package Quantity.

HSTTV Heat Shrink on 100 Foot Reels

- Applications include insulating and protecting wires and cables
- Fast shrink time
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 3
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Black Cross-linked Polyolefin



Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm		
HSTTV05-C	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1	10
HSTTV06-C	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1	10
HSTTV09-C	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1	10
HSTTV12-C	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1	10
HSTTV19-C	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1	10
HSTTV25-C	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	1	10
HSTTV38-C	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	1	10
HSTTV50-C	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	1	10
HSTTV75-C	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	1	10
HSTTV100-C	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	1	2
HSTTV100-C5*	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	1	2
HSTTV150-C	1.50	38.1	1.50	38.1	0.750	19.1	0.040	1.0	1	2

*Green.

HSTTV Heat Shrink on Bulk Reels

- Applications include insulating, protecting, and color coding wires and cables
- Fast shrink time
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 3
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length Per Reel		Color	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m			
HSTTV05-M	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1000	304.8	Black	1	2
HSTTV05-M2	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1000	304.8	Red	1	2
HSTTV05-M4	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1000	304.8	Yellow	1	2
HSTTV05-M6	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1000	304.8	Blue	1	2
HSTTV06-M	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1000	304.8	Black	1	2
HSTTV06-M2	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1000	304.8	Red	1	2
HSTTV06-M4	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1000	304.8	Yellow	1	2
HSTTV06-M6	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1000	304.8	Blue	1	2
HSTTV09-M	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1000	304.8	Black	1	2
HSTTV09-M2	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1000	304.8	Red	1	2
HSTTV09-M4	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1000	304.8	Yellow	1	2
HSTTV09-M6	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1000	304.8	Blue	1	2
HSTTV12-M	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1000	304.8	Black	1	2
HSTTV12-M2	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1000	304.8	Red	1	2
HSTTV12-M4	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1000	304.8	Yellow	1	2
HSTTV12-M6	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1000	304.8	Blue	1	2
HSTTV19-M	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1000	304.8	Black	1	2
HSTTV19-M2	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1000	304.8	Red	1	2
HSTTV19-M4	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1000	304.8	Yellow	1	2
HSTTV19-M6	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1000	304.8	Blue	1	2
HSTTV25-D	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	500	152.4	Black	1	2
HSTTV25-D2	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	500	152.4	Red	1	2
HSTTV25-D4	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	500	152.4	Yellow	1	2
HSTTV25-D6	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	500	152.4	Blue	1	2
HSTTV38-T	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	200	61.1	Black	1	2
HSTTV38-T2	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	200	61.1	Red	1	2
HSTTV38-T4	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	200	61.1	Yellow	1	2
HSTTV38-T6	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	200	61.1	Blue	1	2
HSTTV50-T	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	200	61.1	Black	1	2
HSTTV50-T2	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	200	61.1	Red	1	2
HSTTV50-T4	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	200	61.1	Yellow	1	2
HSTTV50-T6	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	200	61.1	Blue	1	2
HSTTV75-T	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	200	61.1	Black	1	2
HSTTV75-T2	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	200	61.1	Red	1	2
HSTTV75-T4	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	200	61.1	Yellow	1	2
HSTTV75-T6	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	200	61.1	Blue	1	2

Order number of pieces required, in multiples of Standard Package Quantity.

HSTTV Heat Shrink on 25 Foot Reels

- Applications include insulating and protecting wires and cables
- Fast shrink time
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 3
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Black cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm		
HSTTV05-Q	0.046	1.2	0.046	1.2	0.023	0.6	0.016	0.4	1	10
HSTTV06-Q	0.063	1.6	0.063	1.6	0.031	0.8	0.017	0.4	1	10
HSTTV09-Q	0.093	2.4	0.093	2.4	0.046	1.2	0.020	0.5	1	10
HSTTV12-Q	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1	10
HSTTV19-Q	0.187	4.8	0.187	4.8	0.093	2.4	0.020	0.5	1	10
HSTTV25-Q	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	1	10
HSTTV38-Q	0.375	9.5	0.375	9.5	0.187	4.8	0.025	0.6	1	10
HSTTV50-Q	0.500	12.7	0.500	12.7	0.250	6.4	0.025	0.6	1	10
HSTTV75-Q	0.750	19.1	0.750	19.1	0.375	9.5	0.030	0.8	1	10
HSTTV100-Q	1.00	25.4	1.00	25.4	0.500	12.7	0.035	0.9	1	2

HSTTV Heat Shrink 6 Inch Pieces

- Applications include insulating and protecting wires and cables
- Fast shrink time
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- UL Recognized, CSA Certified
- Mil Spec: AMS-DTL-23053/5 Class 3
- Temperature range: -67°F to 275°F (-55°C to 135°C)
- For dry locations
- Material: Black cross-linked Polyolefin

Part Number	Nominal Diameter/Size		Min. Expanded I.D.		Max. Recovered I.D.		Pieces Per Package	Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm			
HSTTV05-Y	0.046	1.2	0.046	1.2	0.023	0.6	26	1	10
HSTTV06-Y	0.063	1.6	0.063	1.6	0.031	0.8	26	1	10
HSTTV09-Y	0.093	2.4	0.093	2.4	0.046	1.2	24	1	10
HSTTV12-Y	0.125	3.2	0.125	3.2	0.062	1.6	20	1	10
HSTTV19-Y	0.187	4.8	0.187	4.8	0.093	2.4	18	1	10
HSTTV25-Y	0.250	6.4	0.250	6.4	0.125	3.2	14	1	10
HSTTV38-Y	0.375	9.5	0.375	9.5	0.187	4.8	12	1	10
HSTTV50-Y	0.500	12.7	0.500	12.7	0.250	6.4	10	1	10
HSTTV75-Y	0.750	19.1	0.750	19.1	0.375	9.5	8	1	10
HSTTV100-Y	1.00	25.4	1.00	25.4	0.500	12.7	6	1	10

HSTTP PVC Heat Shrink

- Applications include insulating and protecting wires and cables
- Good resistance to most fuels and oils
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- UL Recognized, CSA Certified
- Temperature range: -4°F to 221°F (-20°C to 105°C)
- For dry locations
- Material: Black cross-linked Polyvinyl Chloride
- Mil Spec: AMS-DTL-23053/2 Class 1

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length Per Reel		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m		
HSTTP05-QY	0.046	1.2	0.046	1.2	0.023	0.6	0.02	0.5	25	7.6	1	10
HSTTP05-CY	0.046	1.2	0.046	1.2	0.023	0.6	0.02	0.5	100	30.5	1	2
HSTTP05-MY	0.046	1.2	0.046	1.2	0.023	0.6	0.02	0.5	1000	304.8	1	2
HSTTP06-QY	0.063	1.6	0.063	1.6	0.031	0.8	0.02	0.5	25	7.6	1	10
HSTTP06-CY	0.063	1.6	0.063	1.6	0.031	0.8	0.02	0.5	100	30.5	1	2
HSTTP06-MY	0.063	1.6	0.063	1.6	0.031	0.8	0.02	0.5	1000	304.8	1	2
HSTTP09-QY	0.093	2.4	0.093	2.4	0.046	1.2	0.025	0.6	25	7.6	1	10
HSTTP09-CY	0.093	2.4	0.093	2.4	0.046	1.2	0.025	0.6	100	30.5	1	2
HSTTP09-MY	0.093	2.4	0.093	2.4	0.046	1.2	0.025	0.6	1000	304.8	1	2
HSTTP12-QY	0.125	3.2	0.125	3.2	0.062	1.6	0.025	0.6	25	7.6	1	10
HSTTP12-CY	0.125	3.2	0.125	3.2	0.062	1.6	0.025	0.6	100	30.5	1	2
HSTTP12-MY	0.125	3.2	0.125	3.2	0.062	1.6	0.025	0.6	1000	304.8	1	2
HSTTP19-QY	0.187	4.8	0.187	4.8	0.093	2.4	0.025	0.6	25	7.6	1	10
HSTTP19-CY	0.187	4.8	0.187	4.8	0.093	2.4	0.025	0.6	100	30.5	1	2
HSTTP19-MY	0.187	4.8	0.187	4.8	0.093	2.4	0.025	0.6	1000	304.8	1	2
HSTTP25-QY	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	25	7.6	1	10
HSTTP25-CY	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	100	30.5	1	2
HSTTP25-DY	0.250	6.4	0.250	6.4	0.125	3.2	0.025	0.6	500	152.4	1	2
HSTTP38-QY	0.375	9.5	0.375	9.5	0.187	4.8	0.03	0.8	25	7.6	1	10
HSTTP38-CY	0.375	9.5	0.375	9.5	0.187	4.8	0.03	0.8	100	30.5	1	2
HSTTP38-TY	0.375	9.5	0.375	9.5	0.187	4.8	0.03	0.8	200	61.0	1	2
HSTTP50-QY	0.500	12.7	0.500	12.7	0.250	6.4	0.03	0.8	25	7.6	1	10
HSTTP50-CY	0.500	12.7	0.500	12.7	0.250	6.4	0.03	0.8	100	30.5	1	2
HSTTP75-QY	0.750	19.1	0.750	19.1	0.375	9.5	0.035	0.9	25	7.6	1	10
HSTTP75-CY	0.750	19.1	0.750	19.1	0.375	9.5	0.035	0.9	100	30.5	1	2
HSTTP100-QY	1.00	25.4	1.00	25.4	0.500	12.7	0.04	1.0	25	7.6	1	2
HSTTP100-CY	1.00	25.4	1.00	25.4	0.500	12.7	0.04	1.0	100	30.5	1	2
HSTTP150-QY	1.50	38.1	1.50	38.1	0.750	19.1	0.045	1.1	25	7.6	1	2
HSTTP150-CY	1.50	38.1	1.50	38.1	0.750	19.1	0.045	1.1	100	30.5	1	2
HSTTP200-QY	2.00	50.8	2.00	50.8	1.00	25.4	0.05	1.3	25	7.6	1	2

Order number of pieces required, in multiples of Standard Package Quantity.

HSTTPN Crystal Clear PVC Heat Shrink

- Low shrink temperature (store below 90°F) to speed installation
- Crystal clear material ensures easy to read labels and splice inspections
- Voltage: 600 V
- Shrink ratio of 2:1 insulates a wide range of diameters and irregular shapes
- Highly flame retardant product manufactured from a material that is rated UL 224 VW-1
- Temperature range: -4°F to 221°F (-20°C to 105°C)
- For dry locations
- Material: Clear Polyvinyl Chloride
- Mil Spec: AMS-DTL-23053/2 Class 2

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length		Length Per Reel		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m		
HSTTPN50-438-L	0.46	11.7	0.46	11.7	0.25	6.4	0.022	0.6	4.38	111.3	—	—	50	500
HSTTPN50-713-Q	0.46	11.7	0.46	11.7	0.25	6.4	0.022	0.6	7.13	181.1	—	—	25	250
HSTTPN62-750-Q	0.56	14.3	0.56	14.3	0.31	8.0	0.027	0.7	7.50	190.5	—	—	25	250
HSTTPN75-775-Q	0.70	17.7	0.70	17.7	0.38	9.5	0.027	0.7	7.75	196.9	—	—	25	250
HSTTPN100-775-Q	0.90	22.9	0.90	22.9	0.50	12.7	0.030	0.8	7.75	196.9	—	—	25	250
HSTTPN150-925-X	1.40	35.4	1.40	35.4	0.75	19.1	0.030	0.8	9.25	235.0	—	—	10	100
HSTTPN200-950-X	1.80	45.7	1.80	45.7	1.00	25.4	0.039	1.0	9.50	241.3	—	—	10	100
HSTTPN50-CC	0.46	11.7	0.46	11.7	0.25	6.4	0.022	0.6	—	—	100	30.5	1	2
HSTTPN62-CC	0.56	14.3	0.56	14.3	0.31	8.0	0.027	0.7	—	—	100	30.5	1	2
HSTTPN75-CC	0.70	17.7	0.70	17.7	0.38	9.5	0.027	0.7	—	—	100	30.5	1	2
HSTTPN100-CC	0.90	22.9	0.90	22.9	0.50	12.7	0.030	0.8	—	—	100	30.5	1	2
HSTTPN150-CC	1.40	35.4	1.40	35.4	0.75	19.1	0.030	0.8	—	—	100	30.5	1	2
HSTTPN200-CC	1.80	45.7	1.80	45.7	1.00	25.4	0.039	1.0	—	—	100	30.5	1	2

HSTTN Neoprene Heat Shrink

- Applications include insulating, protecting, and color coding wires and cables
- Excellent chemical resistance especially to fuels and oils
- Voltage: 600 V
- Shrink ratio: 2:1
- Mil Spec: AMS-DTL-23053/1 Class 2
- Temperature range: -94°F to 250°F (-70°C to 121°C)
- For dry locations
- Material: Black cross-linked Neoprene

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length per Reel		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m		
HSTTN25-CY	0.250	6.4	0.250	6.4	0.143	3.6	0.035	0.9	100	30.5	1	2
HSTTN38-CY	0.375	9.5	0.375	9.5	0.211	5.4	0.040	1.0	100	30.5	1	2
HSTTN50-CY	0.500	12.7	0.500	12.7	0.286	7.3	0.048	1.2	100	30.5	1	2
HSTTN63-CY	0.625	15.9	0.625	15.9	0.357	9.1	0.052	1.3	100	30.5	1	2
HSTTN75-CY	0.750	19.1	0.750	19.1	0.428	10.9	0.057	1.5	100	30.5	1	2
HSTTN88-CY	0.875	22.2	0.875	22.2	0.500	12.7	0.065	1.7	100	30.5	1	2
HSTTN100-CY	1.00	25.4	1.00	25.4	0.570	14.5	0.070	1.8	100	30.5	1	2
HSTTN125-CY	1.25	31.8	1.25	31.8	0.714	18.1	0.087	2.2	100	30.5	1	2
HSTTN150-CY	1.50	38.1	1.50	38.1	0.857	21.8	0.095	2.4	100	30.5	1	2
HSTTN175-CY	1.75	44.5	1.75	44.5	1.00	25.4	0.107	2.7	100	30.5	1	1
HSTTN200-QY	2.00	50.8	2.00	50.8	1.14	29.0	0.110	2.8	25	7.6	1	2
HSTTN300-QY	3.00	76.2	3.00	76.2	1.71	43.4	0.125	3.8	25	7.6	1	2

TFE Heat Shrink 4 Foot Pieces

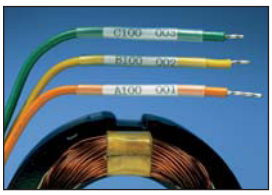
- Applications include insulating and protecting wires and cables
- Voltage: 600 V
- Shrink ratio: 2:1
- Mil Spec: AMS-DTL-23053/12 Class 3
- Temperature range: -88°F to 482°F (-67°C to 250°C)
- Color: Opaque
- For dry locations
- Material: Polytetrafluoroethylene (TFE)
- High temperature; resists corrosive atmosphere
- See page C3.42 for shrink instructions

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length		Std. Pkg. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m	
HSTTT03-48-Q	30 AWG	0.9	0.034	0.9	0.015	0.4	0.009	0.2	4	1.2	25
HSTTT04-48-Q	28 AWG	1.0	0.038	1.0	0.018	0.5	0.009	0.2	4	1.2	25
HSTTT046-48-Q	26 AWG	1.2	0.046	1.2	0.022	0.5	0.010	0.3	4	1.2	25
HSTTT05-48-Q	24 AWG	1.3	0.050	1.3	0.027	0.7	0.010	0.3	4	1.2	25
HSTTT055-48-Q	22 AWG	1.4	0.055	1.4	0.032	0.8	0.012	0.3	4	1.2	25
HSTTT06-48-Q	20 AWG	1.5	0.060	1.5	0.039	1.0	0.012	0.3	4	1.2	25
HSTTT08-48-Q	18 AWG	1.9	0.076	1.9	0.049	1.2	0.012	0.3	4	1.2	25
HSTTT09-48-Q	16 AWG	2.3	0.093	2.3	0.061	1.6	0.012	0.3	4	1.2	25
HSTTT12-48-Q	14 AWG	3.0	0.120	3.0	0.072	1.8	0.012	0.3	4	1.2	25
HSTTT15-48-Q	12 AWG	3.8	0.150	3.8	0.089	2.3	0.012	0.3	4	1.2	25
HSTTT19-48-Q	10 AWG	4.9	0.191	4.9	0.112	2.8	0.012	0.3	4	1.2	25
HSTTT24-48-Q	8 AWG	6.0	0.240	6.0	0.141	3.6	0.015	0.4	4	1.2	25
HSTTT30-48-Q	6 AWG	7.7	0.302	7.7	0.178	4.5	0.015	0.4	4	1.2	25
HSTTT37-48-Q	4 AWG	9.4	0.370	9.4	0.224	5.7	0.015	0.4	4	1.2	25
HSTTT43-48-Q	2 AWG	10.9	0.430	10.9	0.278	7.0	0.015	0.4	4	1.2	25
HSTTT47-48-Q	0 AWG	11.9	0.470	11.9	0.347	8.8	0.015	0.4	4	1.2	25
HSTTT56-48-5	9/16	14.2	0.560	14.2	0.399	10.1	0.015	0.4	4	1.2	5
HSTTT66-48-5	5/8	16.6	0.655	16.6	0.462	11.7	0.018	0.5	4	1.2	5
HSTTT75-48-5	3/4	19.1	0.750	19.0	0.524	13.3	0.018	0.5	4	1.2	5
HSTTT93-48-5	15/16	23.6	0.930	23.6	0.655	16.6	0.020	0.5	4	1.2	5
HSTTT112-48-5	1 1/8	28.6	1.12	28.6	0.786	20.0	0.025	0.6	4	1.2	5
HSTTT131-48-2	1 5/16	33.3	1.31	33.3	0.911	23.1	0.030	0.8	4	1.2	2
HSTTT150-48-2	1 1/2	38.1	1.50	38.1	1.036	26.3	0.030	0.8	4	1.2	2

Order number of pieces required, in multiples of Standard Package Quantity.

HSTTK Kynar* Heat Shrink 4 Foot Pieces

- Applications include insulating and protecting wires and cables
- Excellent chemical and abrasion resistance
- Use in high temperature or solvent rich environment
- Voltage: 600 V
- Shrink ratio: 2:1
- Flammability: Meets UL 224 VW-1
- Mil Spec: AMS-DTL-23053/8
- Temperature range: -67°F to 347°F (-55°C to 175°C)
- For dry locations
- Material: Clear Cross-linked Polyvinylidfene Fluoride (PVDF)



Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	
HSTTK05-48-Q	0.046	1.2	0.046	1.2	0.023	0.6	0.010	0.3	25
HSTTK06-48-Q	0.063	1.6	0.063	1.6	0.031	0.8	0.010	0.3	25
HSTTK09-48-Q	0.093	2.4	0.093	2.4	0.046	1.2	0.010	0.3	25
HSTTK12-48-Q	0.125	3.2	0.125	3.2	0.062	1.6	0.010	0.3	25
HSTTK19-48-Q	0.187	4.8	0.187	4.8	0.093	2.4	0.010	0.3	25
HSTTK25-48-Q	0.250	6.4	0.250	6.4	0.125	3.2	0.012	0.3	25
HSTTK38-48-Q	0.375	9.5	0.375	9.5	0.187	4.8	0.012	0.3	25
HSTTK50-48-5	0.500	12.7	0.500	12.7	0.250	6.4	0.012	0.3	5
HSTTK75-48-5	0.750	19.1	0.750	19.1	0.375	9.5	0.017	0.4	5
HSTTK100-48-5	1.00	25.4	1.00	25.4	0.500	12.7	0.019	0.5	5

*KYNAR is a registered trademark of Atofina Chemicals, Inc.

HSTTVA Heat Shrink 4 Foot and 6 Inch Pieces

- Applications include insulating and protecting wires and cables
- Flexible tubing with an adhesive inner wall which seals and protects components from moisture and corrosion
- Voltage rating: 600 V
- Shrink ratio: 2:1
- Flammability: Outer wall flame retardant
- Mil Spec: AMS-DTL-23053/4 Class 2
- Temperature range: -67°F to 230°F (-55°C to 110°C)
- For damp locations
- Material: Adhesive lined black cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	
4' (1.22m) Pieces									
HSTTVA12-48-Q	0.125	3.2	0.125	3.2	0.062	1.6	0.021	0.5	25
HSTTVA19-48-Q	0.187	4.8	0.187	4.8	0.093	2.4	0.023	0.6	25
HSTTVA25-48-Q	0.250	6.4	0.250	6.4	0.125	3.2	0.029	0.7	25
HSTTVA38-48-Q	0.375	9.5	0.375	9.5	0.187	4.8	0.029	0.7	25
HSTTVA50-48-5	0.500	12.7	0.500	12.7	0.250	6.4	0.030	0.8	5
HSTTVA75-48-5	0.750	19.1	0.750	19.1	0.375	9.5	0.035	0.9	5
HSTTVA100-48-5	1.00	25.4	1.00	25.4	0.500	12.7	0.042	1.1	5
HSTTVA150-48-5	1.50	38.1	1.50	38.1	0.750	19.1	0.047	1.2	5

Table continues on page C3.36

HSTTVA Heat Shrink 4 Foot and 6 Inch Pieces (continued)

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.	Pieces per Package
	In.	mm	In.	mm	In.	mm	In.	mm		
6" (152.4mm) Pieces										
HSTTVA12-Y	0.125	3.2	0.125	3.2	0.062	1.6	0.020	0.5	1	7
HSTTVA19-Y	0.187	4.8	0.187	4.8	0.093	2.4	0.022	0.6	1	7
HSTTVA25-Y	0.250	6.4	0.250	6.4	0.125	3.2	0.030	0.8	1	5
HSTTVA38-Y	0.375	9.5	0.375	9.5	0.187	4.8	0.031	0.8	1	4
HSTTVA50-Y	0.500	12.7	0.500	12.7	0.250	6.4	0.032	0.8	1	4
HSTTVA75-Y	0.750	19.1	0.750	19.1	0.375	9.5	0.037	0.9	1	3
HSTTVA100-Y	1.00	25.4	1.00	25.4	0.500	12.7	0.046	1.2	1	2

HSTTA Heat Shrink 4 Foot and 6 Inch Pieces

- Applications include insulating and protecting wires and cables
- Flexible tubing with an adhesive inner wall which seals and protects components from moisture and corrosion
- Voltage rating: 600 V
- Shrink ratio: 3:1
- Flammability: Outer wall flame retardant
- Mil Spec: AMS-DTL-23053/4 Class 3
- Temperature range: -67°F to 230°F (-55°C to 110°C)
- For damp locations
- Material: Adhesive lined black cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm		
4' (1.22m) Pieces										
HSTTA19-48-Q	0.187	4.8	0.187	4.8	0.062	1.6	0.040	1.0	25	—
HSTTA25-48-Q	0.250	6.4	0.250	6.4	0.080	2.0	0.040	1.0	25	—
HSTTA25-48-TL	0.250	6.4	0.250	6.4	0.080	2.0	0.040	1.0	250	—
HSTTA38-48-Q	0.375	9.5	0.375	9.5	0.120	3.0	0.055	1.4	25	—
HSTTA38-48-TL	0.375	9.5	0.375	9.5	0.120	3.0	0.055	1.4	250	—
HSTTA50-48-5	0.500	12.7	0.500	12.7	0.160	4.1	0.070	1.8	5	—
HSTTA50-48-T	0.500	12.7	0.500	12.7	0.160	4.1	0.070	1.8	200	—
HSTTA75-48-5	0.750	19.1	0.750	19.1	0.250	6.4	0.085	2.2	5	—
HSTTA75-48-C	0.750	19.1	0.750	19.1	0.250	6.4	0.085	2.2	100	—
HSTTA100-48-5	1.00	25.4	1.00	25.4	0.320	8.1	0.100	2.5	5	—
HSTTA100-48-L	1.00	25.4	1.00	25.4	0.320	8.1	0.100	2.5	50	—
HSTTA150-48-5	1.50	38.1	1.50	38.1	0.510	12.9	0.100	2.5	5	—
HSTTA150-48-Q	1.50	38.1	1.50	38.1	0.510	12.9	0.100	2.5	25	—

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.	Std. Ctn. Qty.	Pieces per Package
	In.	mm	In.	mm	In.	mm	In.	mm			
6" (152.4mm) Pieces											
HSTTA19-Y	0.187	4.8	0.187	4.8	0.062	1.6	0.040	1.0	1	10	6
HSTTA25-Y	0.250	6.4	0.250	6.4	0.080	2.0	0.040	1.0	1	10	4
HSTTA38-Y	0.375	9.5	0.375	9.5	0.120	3.0	0.055	1.4	1	10	3
HSTTA50-Y	0.500	12.7	0.500	12.7	0.160	4.1	0.070	1.8	1	10	3
HSTTA75-Y	0.750	19.1	0.750	19.1	0.250	6.4	0.085	2.2	1	10	2
HSTTA100-Y	1.00	25.4	1.00	25.4	0.320	8.1	0.100	2.5	1	10	2
HSTTA150-Y	1.50	38.1	1.50	38.1	0.510	12.9	0.100	2.5	1	10	1

Order number of pieces required, in multiples of Standard Package Quantity.

HSTT4A Heat Shrink 4 Foot Pieces

- Applications include insulating and protecting oversized electrical and electronic components, cables, terminals and connectors
- Flexible tubing with an adhesive inner wall which seals and protects components from moisture and corrosion
- Voltage: 600 V
- Shrink ratio: 4:1
- Flammability: Flame retardant outer wall meets UL 224 VW-1
- Mil Spec: AMS-DTL-23053/4 Class 3
- Temperature range: -67°F to 257°F (-55°C to 125°C)
- For damp locations
- Material: Adhesive lined black cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length		Std. Pkg. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	Ft.	m	
HSTT4A15-48-Q	0.158	4.0	0.158	4.0	0.039	1.0	0.043	1.10	4	1.2	25
HSTT4A31-48-Q	0.315	8.0	0.315	8.0	0.079	2.0	0.043	1.10	4	1.2	25
HSTT4A47-48-Q	0.472	12.0	0.472	12.0	0.118	3.0	0.055	1.40	4	1.2	25
HSTT4A62-48-5	0.630	16.0	0.630	16.0	0.158	4.0	0.070	1.80	4	1.2	5
HSTT4A94-48-5	0.945	24.0	0.945	24.0	0.236	6.0	0.088	2.25	4	1.2	5
HSTT4A125-48-5	1.26	32.0	1.26	32.0	0.315	8.0	0.100	2.54	4	1.2	5
HSTT4A200-48-5	2.05	52.0	2.05	52.0	0.512	13.0	0.100	2.54	4	1.2	5

HSTTRA Heat Shrink 4 Foot Pieces

- Applications include insulating and protecting wires and cables
- Semi-rigid tubing with an adhesive inner wall seals and protects components from moisture and corrosion
- Voltage rating: 600 V
- Shrink ratio: 2.5:1 Minimum
- Mil Spec: AMS-DTL-23053/4 Class 1
- Temperature range: -67°F to 230°F (-55°C to 110°C)
- For damp locations
- Material: Adhesive lined black cross-linked Polyolefin

Part Number	Nominal Diameter		Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Std. Pkg. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	
HSTTRA12-48-Q	0.125	3.2	0.125	3.2	0.023	0.6	0.038	1.0	25
HSTTRA19-48-Q	0.187	4.8	0.187	4.8	0.060	1.5	0.043	1.1	25
HSTTRA25-48-Q	0.250	6.4	0.250	6.4	0.080	2.0	0.047	1.2	25
HSTTRA38-48-Q	0.375	9.5	0.375	9.5	0.135	3.4	0.050	1.3	25
HSTTRA50-48-5	0.500	12.7	0.500	12.7	0.195	5.0	0.055	1.4	5
HSTTRA75-48-5	0.750	19.1	0.750	19.1	0.313	8.0	0.065	1.7	5
HSTTRA100-48-5	1.00	25.4	1.00	25.4	0.400	10.2	0.075	1.9	5

Thick Wall Polyolefin Heat Shrink

- Applications include insulating and protecting wires and cables
- Adhesive-lined inner wall seals and protects against moisture
- Thick wall suitable for direct burial according to UL 486D and provides excellent protection
- Voltage rating: UL 486D Listed for 600 V 90°C continuous use
- Shrink ratio: 3:1
- Flammability: Flame retardant outer wall meets UL 224 VW-1
- UL Listed, UL Recognized and CSA Certified (Except HST3.0 and HST3.5)
- Mil Spec: AMS-DTL-23053/15
- Temperature range: -67°F to 230°F (-55°C to 110°C)
- For wet locations
- Suitable for outdoor, direct sunlight applications (Black only)
- Material: Adhesive lined black and red cross-linked Polyolefin

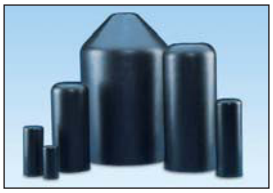
Part Number	Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Length		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm		
HST0.4-3-Q2Y*	0.40	10.2	0.16	4.1	0.08	2.0	3.0	76.2	25	100
HST0.4-3-QY*	0.40	10.2	0.16	4.1	0.08	2.0	3.0	76.2	25	100
HST0.4-48-5-2Y*	0.40	10.2	0.16	4.1	0.08	2.0	48.0	1219.2	5	20
HST0.4-48-5Y*	0.40	10.2	0.16	4.1	0.08	2.0	48.0	1219.2	5	20
HST0.4-6-3Y*	0.40	10.2	0.16	4.1	0.08	2.0	6.0	152.4	3	30
HST0.4-6-X2Y*	0.40	10.2	0.16	4.1	0.08	2.0	6.0	152.4	10	100
HST0.4-6-XY*	0.40	10.2	0.16	4.1	0.08	2.0	6.0	152.4	10	100
HST0.8-12-5-2Y*	0.75	19.1	0.22	5.6	0.09	2.3	12.0	304.8	5	50
HST0.8-12-5Y*	0.75	19.1	0.22	5.6	0.09	2.3	12.0	304.8	5	50
HST0.8-48-5-2Y*	0.75	19.1	0.22	5.6	0.09	2.3	48.0	1219.2	5	20
HST0.8-48-5Y*	0.75	19.1	0.22	5.6	0.09	2.3	48.0	1219.2	5	20
HST0.8-6-3Y*	0.75	19.1	0.22	5.6	0.09	2.3	6.0	152.4	3	30
HST0.8-6-X2Y*	0.75	19.1	0.22	5.6	0.09	2.3	6.0	152.4	10	100
HST0.8-6-XY*	0.75	19.1	0.22	5.6	0.09	2.3	6.0	152.4	10	100
HST0.8-9-X2Y*	0.75	19.1	0.22	5.6	0.09	2.3	9.0	228.6	10	100
HST0.8-9-XY*	0.75	19.1	0.22	5.6	0.09	2.3	9.0	228.6	10	100
HST1.1-12-5-2Y	1.10	27.9	0.38	9.5	0.12	3.0	12.0	304.8	5	50
HST1.1-12-5Y	1.10	27.9	0.38	9.5	0.12	3.0	12.0	304.8	5	50
HST1.1-48-5-2Y	1.10	27.9	0.38	9.5	0.12	3.0	48.0	1219.2	5	20
HST1.1-48-5Y	1.10	27.9	0.38	9.5	0.12	3.0	48.0	1219.2	5	20
HST1.1-6-3Y	1.10	27.9	0.38	9.5	0.12	3.0	6.0	152.4	3	30
HST1.1-6-X2Y	1.10	27.9	0.38	9.5	0.12	3.0	6.0	152.4	10	100
HST1.1-6-XY	1.10	27.9	0.38	9.5	0.12	3.0	6.0	152.4	10	100
HST1.1-9-2Y	1.10	27.9	0.38	9.5	0.12	3.0	9.0	228.6	2	20
HST1.1-9-X2Y	1.10	27.9	0.38	9.5	0.12	3.0	9.0	228.6	10	100
HST1.1-9-XY	1.10	27.9	0.38	9.5	0.12	3.0	9.0	228.6	10	100
HST1.5-12-1Y	1.50	38.1	0.50	12.7	0.16	4.1	12.0	304.8	1	10
HST1.5-12-5Y	1.50	38.1	0.50	12.7	0.16	4.1	12.0	304.8	5	50
HST1.5-48-5-2Y	1.50	38.1	0.50	12.7	0.16	4.1	48.0	1219.2	5	15
HST1.5-48-5Y	1.50	38.1	0.50	12.7	0.16	4.1	48.0	1219.2	5	15
HST1.5-9-XY	1.50	38.1	0.50	12.7	0.16	4.1	9.0	228.6	10	100
HST2.0-12-2Y	2.00	50.8	0.67	16.9	0.16	4.1	12.0	304.8	2	20
HST2.0-48-2Y	2.00	50.8	0.67	16.9	0.16	4.1	48.0	1219.2	2	8
HST2.0-9-5Y	2.00	50.8	0.67	16.9	0.16	4.1	9.0	228.6	5	50
HST2.7-12-2Y	2.70	68.6	0.87	22.1	0.16	4.1	12.0	304.8	2	20
HST2.7-48-2Y	2.70	68.6	0.87	22.1	0.16	4.1	48.0	1219.2	2	8
HST3.0-12-2	3.00	76.2	1.00	25.4	0.16	4.1	12.0	304.8	2	20
HST3.0-48-2	3.00	76.2	1.00	25.4	0.16	4.1	48.0	1219.2	2	8
HST3.5-12-2Y	3.50	88.9	1.20	30.5	0.16	4.1	12.0	304.8	2	20
HST3.5-48-2Y	3.50	88.9	1.20	30.5	0.16	4.1	48.0	1219.2	2	6

*Product meets performance requirements of AMS-DTL-23053/15; some dimensions differ from specification.

Order number of pieces required, in multiples of Standard Package Quantity.

Heat Shrink End Caps

- Applications include insulating and protecting wires and cables
- Adhesive lined inner wall seals and provides excellent protection against moisture
- Voltage rating of 600 V
- Shrink ratio: 2.5:1 (HSEC); 3:1 (HSECFR)
- Temperature range: -67°F to 230°F (-55°C to 110°C)
- For wet locations
- Material: Adhesive lined black cross-linked Polyolefin; HSECFR = Flame retardant



HSEC

HSECFR

Part Number	Min. Expanded I.D.		Max. Recovered I.D.		Nominal Recovered Wall Thickness		Cap Length		Std. Pkg. Qty.	Std. Ctn. Qty.
	In.	mm	In.	mm.	In.	mm	In.	mm		
HSEC0.5-X	0.47	11.9	0.18	4.6	0.10	2.5	1.4	35.1	10	100
HSEC0.8-X	0.79	20.1	0.30	7.6	0.10	2.5	2.1	54.1	10	100
HSEC1.0-X	1.02	25.9	0.45	11.4	0.10	2.5	3.2	82.0	10	100
HSEC1.5-5	1.58	40.1	0.68	17.3	0.11	2.8	3.9	98.0	5	50
HSEC2.0-5	2.25	57.2	0.87	22.1	0.15	3.8	5.5	140.2	5	50
HSEC4.0-2	4.14	105.2	1.78	45.2	0.15	3.8	6.9	175.3	2	10
Heat Shrink End Caps – Flame Retardant										
HSECFR0.5-XY	0.51	13.0	0.16	4.1	0.09	2.3	2.5	63.5	10	100
HSECFR0.8-XY	0.75	19.1	0.24	6.1	0.09	2.3	2.5	63.5	10	100
HSECFR1.0-XY	1.10	27.9	0.35	8.9	0.12	3.0	3.0	76.2	10	100
HSECFR1.5-5Y	1.50	38.1	0.47	11.9	0.16	4.1	3.5	88.9	5	50
HSECFR2.0-5Y	2.00	50.8	0.63	16.0	0.16	4.1	3.5	88.9	5	50

Plastic Heat Shrink Tubing Kit Boxes – For Dry Locations

Part Number	Part Description	Contents	Std. Pkg. Qty.
KP-HSTT1	Heat shrink kit box – plastic case, various sizes. Black only.	35 ea. of 3/32",1/8" 21 ea. of 3/16",1/4" 7 ea. of 3/8",1/2"	1
KP-HSTT2	Heat shrink kit box – plastic case, various sizes, various colors.	35 ea. (5 ea. color) 3/32",1/8" 21 ea. (3 ea. color) 3/16",1/4" 7 ea. (1 ea. color) 3/8", 1/2"	1
KP-HSTTA	Dual Wall Adhesive Lined Thin Wall Heat Shrink: Plastic Kit Box – Black only.	14 ea. 3/16" 12 ea. 1/4" 10 ea. 3/8" 6 ea. 1/2" 3 ea. 3/4" 2 ea. 1"	1

Heat Shrink Tools and Accessories

Part Number	Part Description	Std. Pkg. Qty.	Std. Ctn. Qty.
HSG-115V-650	Heat gun with stand. Temperature range of 650°F (343°C) to 900°F (482°C) plus stand. (Case and accessories not included).	1	–
HSG-A1	Shrink tube reflector for tubing up to 3/4" inside diameter. Directs heat around tubing to reduce shrink time.	1	10
HSG-A2	Shrink tube reflector for tubing up to 1 1/2" inside diameter. Directs heat around tubing to reduce shrink time.	1	10
HSG-A4	Black polyethylene case stores heat gun, stand, and both accessories.	1	–
HSG-P1	Replacement brush / spring kit.	1	5
HSG-P2	Replacement switch 20 Amp.	1	5
HSG-P3	Replacement bearing kit.	1	5
HSG-P7	Replacement heat element 650°F.	1	–

Order number of pieces required, in multiples of Standard Package Quantity.

Heat Shrink Process Defined

Extrusion/Material

Various thermoplastic materials that will repeatedly melt and flow, such as polyolefin, PVC, etc., are extruded into tube form. If examined at a molecular level, the material would resemble long thin strands weakly connected at various points by crystalline structure. If left in this state, the performance of the tube would be limited to that of the base material.

Cross Linking

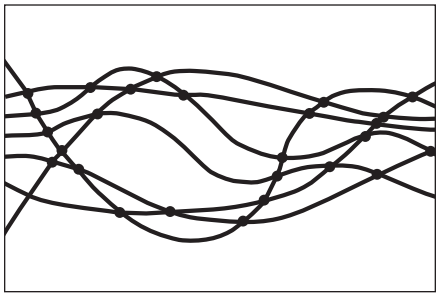
Cross-linking creates high strength bonds between the molecular strands, in addition to the crystalline bonds. This is done with a high voltage or chemical treatment of the material. The cross-link bonds will not break down with heat; this transforms the material from a thermoplastic to a thermoset material that will not melt and flow. The result is a material with superior electrical and mechanical properties.

Expansion

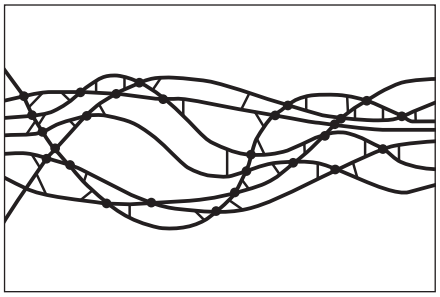
The cross-linked tube is heated and the crystalline bonds dissolve, however, the cross-link bonds remain. The tube now is softer and can be expanded. This causes the cross-link bonds to stretch when cooled quickly, the crystalline bonds reform, freezing the tube in the expanded size. The tubing has now completed the manufacturing process.

Recovery

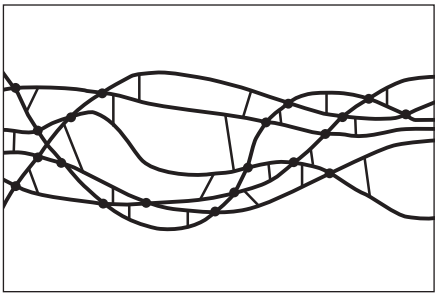
With the proper type and size of tube selected, the tube is placed over the object to be covered. Heat is now applied. This causes the crystalline bonds to dissolve again and the tube softens. The stretched cross-link bonds now return to their original length and the tube shrinks to the diameter it had when cross-linked, unless it encounters an object larger than this diameter. In this case, it conforms tightly to this object.



Extrusion



Cross-Link



Expansion

Heat Shrink Installation Instructions

General Instructions

Position heat shrink over the object to be covered. Using a heat gun, soft yellow flame torch, infrared heat source or oven, evenly heat the tubing until it has fully recovered and conforms to the object. Use caution not to char or burn the tubing.

Special Instructions for HSTTT

TFE Heat Shrink is the most difficult to recover due to its high shrink temperature. TFE shrink tubing must be heated to the gel state 621°F (327°C) to completely recover. This can be recognized when the tubing changes from milky white to clear. Because of the unique characteristics of this material, a controlled temperature oven will achieve the most reliable results – it is difficult to consistently recover this product using a high-temp heat gun or similar heat source. These methods have a tendency to overheat the tube in one area while other areas remain cool.

When recovering onto objects, use a temperature controlled oven set at 660°F – 680°F (349°C – 360°C) for approximately 10 minutes is recommended. It is best to place the product on a fiberglass mat or suspend as opposed to contacting the oven rack. Do NOT heat the product above 700°F (371°C), or degradation damage to the TFE polymer will occur.

Size Selection for Heat Shrink Tubing

Generally, the largest tube that shrinks down tightly onto an object should be chosen. This allows the heat shrink tubing maximum stress relief and this will yield the longest service life.

Example:
A multi-conductor cable needs to be covered with HSTT Type Dry-Shrink™ Heat Shrink. The area to be covered has a measured outside diameter of .700" (17.8mm). The two possibilities are HSTT75-48-5 and HSTT100-48-5.

Part Number	Expanded I.D In. (mm)	Recovered I.D. In. (mm)
HSTT75-48-5	.750 (19.1)	.375 (9.5)
HSTT100-48-5	1.00 (25.4)	.500 (12.7)

The proper choice is HSTT100-48-5 since the tube will recover more than HSTT75-48-5. The HSTT75-48-5 will fit over the .700 inch (17.8mm) outside diameter; however, this is not the proper choice since it is smaller than the HSTT100-48-5. In general, heat shrink should recover at least 10% – 20% to reduce stress and yield the longest service life.

Order number of pieces required, in multiples of Standard Package Quantity.

Recommended Tubing Size for Common Wire Types Based on Location

For Insulated Wire, Non-Insulated Wire, and Insulated Wire with Copper Connectors

Instructions for Tube Selection:

1) Determine location type.

LOCATION:

DRY: A location not normally subject to dampness or wetness. A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction.

DAMP: Partially protected locations under canopies, marquees, roofed open porches and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, barns, and cold-storage warehouses.

WET: Installations underground or in concrete slabs or masonry in direct contact with the earth, and locations subject to saturation with water or other liquids, such as vehicle washing areas, and locations exposed to weather and unprotected.

2) Match wire size to location type under required application – insulated wire, non-insulated wire, or insulated wire with copper connectors.

3) Read corresponding part number.

4) Part numbers with "-Y" are packages containing 6 inch pieces. Part numbers with "-48" are 48 inch pieces.

5) Part numbers shown below are for black heat shrink.

Wire Size	Insulated Wire with Copper Connector			Uninsulated Wire		
	Dry-Shrink™	Damp-Shrink™	Wet-Shrink™	Dry-Shrink™	Damp-Shrink™	Wet-Shrink™
24	HSTT09-Y	HSTTA19-Y	—	—	—	—
22	HSTT09-Y	HSTTA19-Y	—	HSTT05-Y	—	—
20	HSTT12-Y	HSTTA19-Y	—	HSTT05-Y	—	—
18	HSTT12-Y	HSTTA19-Y	—	HSTT06-Y	—	—
16	HSTT19-Y	HSTTA25-Y	—	HSTT09-Y	—	—
14	HSTT19-Y	HSTTA25-Y	—	HSTT09-Y	HSTTA19-Y	—
12	HSTT25-Y	HSTTA38-Y	—	HSTT012-Y	HSTTA19-Y	—
10	HSTT25-Y	HSTTA38-Y	HST0.4-48-5Y	HSTT19-Y	HSTTA25-Y	—
8	HSTT38-Y	HSTTA50-Y	HST0.4-48-5Y	HSTT19-Y	HSTTA25-Y	—
6	HSTT50-Y	HSTTA50-Y	HST0.8-48-5Y	HSTT25-Y	HSTTA38-Y	HST0.4-48-5Y
4	HSTT50-Y	HSTTA75-Y	HST0.8-48-5Y	HSTT38-Y	HSTTA50-Y	HST0.4-48-5Y
3	HSTT50-Y	HSTTA75-Y	HST0.8-48-5Y	HSTT38-Y	HSTTA50-Y	HST0.4-48-5Y
2	HSTT75-Y	HSTTA100-Y	HST1.1-48-5Y	HSTT38-Y	HSTTA50-Y	HST0.8-48-5Y
1	HSTT75-Y	HSTTA100-Y	HST1.1-48-5Y	HSTT50-Y	HSTTA75-Y	HST0.8-48-5Y
1/0	HSTT75-Y	HSTTA100-Y	HST1.1-48-5Y	HSTT50-Y	HSTTA75-Y	HST0.8-48-5Y
2/0	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y	HSTT50-Y	HSTTA100-Y	HST0.8-48-5Y
3/0	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y	HSTT75-Y	HSTTA100-Y	HST1.1-48-5Y
4/0	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y	HSTT75-Y	HSTTA100-Y	HST1.1-48-5Y
250	HSTT100-Y	HSTTA150-Y	HST2.0-48-2Y	HSTT100-Y	HSTTA100-Y	HST1.1-48-5Y
300	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y
350	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y
400	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y
500	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y	HSTT100-Y	HSTTA150-Y	HST1.5-48-5Y
600	HSTT200-48-5	HSTTA150-Y	HST2.0-48-2Y	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y
700	HSTT200-48-5	HSTTA150-Y	HST2.0-48-2Y	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y
750	HSTT200-48-5	HSTTA150-Y	HST3.0-48-2Y	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y
800	HSTT200-48-5	HSTTA150-Y	HST3.0-48-2Y	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y
900	HSTT200-48-5	—	HST3.0-48-2Y	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y
1000	HSTT200-48-5	—	HST3.0-48-2Y	HSTT150-48-5	HSTTA150-Y	HST2.0-48-2Y
1250	HSTT200-48-2	—	HST3.0-48-2Y	HSTT200-48-5	HSTTA150-Y	HST2.0-48-2Y
1500	HSTT300-48-2	—	HST3.0-48-2Y	HSTT200-48-5	—	HST2.0-48-2Y
1750	HSTT300-48-2	—	HST3.0-48-2Y	HSTT200-48-5	—	HST2.0-48-2Y
2000	HSTT300-48-2	—	HST3.0-48-2Y	HSTT200-48-5	—	HST2.0-48-2Y

Sizing information is based on the following wire types: MTW, THHN, THWN, TFN, THW, TW, TF, RHW, RH, RHH and UL 1015.
THHN is the most common wire type.

Dry-Shrink™, Damp-Shrink™, and Wet-Shrink™ Heat Shrink Tubing

Technical Data

General Information

Product Type	Typical Applications	Specific Gravity	Flammability	Water Absorption	Dielectric Strength
HSTT	Economical and easy way to insulate, protect, harness and identify electrical and electronic components in a wide variety of applications. Black is U.V. Resistant. Suitable for use in dry locations.	Class 1, 1.35 Class 2, 1.0 ASTM D792	Class 1 Self Extinguishing ASTM D2671 Procedure B	.5% MAX. ASTM D570	500 V/MIL. (19.7 Kv/mm) min. ASTM D2671
HSTTV	Use where UL recognition with VW-1 rating is required. Use where the wire component cannot tolerate higher shrink temperatures, reduces application time to insulate, protect, identify, etc. Black is U.V. Resistant. Suitable for use in dry locations.	1.50 ASTM D792	VW-1 per UL 224	.5% MAX. ASTM D570	500 V/MIL. (19.7 Kv/mm) min. ASTM D2671
HSTTP	Ripple free conformance around sharp bends as in appliance handles and bus bars. Good cut through and solder-iron resistance. Black is U.V. Resistant. Suitable for use in dry locations.	1.35 MAX.	VW-1 per UL 224	1.0% MAX. ASTM D570	400 V/MIL. (15.8 Kv/mm) min. ASTM D2671
HSTTPN	Crystal clear product that is excellent for protecting wire and cable markers and continuous inspection of splices. Suitable for use in dry locations.	N/A	VW-1 per UL 224	1.0% MAX. ASTM D570	400 V/MIL. (15.8 Kv/mm) min. ASTM D2671
HSTTN	Insulation and abrasion resistance, extensive military uses on vehicles and ship-board. Excellent chemical resistance especially to fuels and oils. Black is U.V. Resistant. Suitable for use in dry locations.	1.30 ASTM D792	Self Extinguishing ASTM D876	1.0% MAX. ASTM D570	300 V/MIL. (11.8 Kv/mm) min. ASTM D2671
HSTTT	High insulation and abrasion resistance. High temperature, strain relief, resists corrosive atmosphere, self lubrication and non-wetting. Can be used with fiber optics and as a strain relief for high density connectors. U.V. Resistant. Suitable for use in dry locations.	2.2 MAX. ASTM D792	VW-1 per UL 224	.01% MAX. ASTM D570	800 V/MIL. (31.5 Kv/mm) min. ASTM D2671
HSTTK	Protection and strain relief for wires or connectors in a high temperature or solvent rich environment. Insulation of heater leads. Suitable for use in dry locations.	1.8 MAX. ASTM D792	VW-1 per UL 224	.5% MAX. ASTM D570	Size to (12.7mm) 800 V/MIL. (31.5 Kv/mm) min Over (12.7mm) 600 V/MIL. (23.6 Kv/mm) min ASTM D2671
HSTTVA	Seals and protects components from moisture and corrosion. Use where a flexible tubing is needed. Suitable for damp locations.	N/A	Self Extinguishing ASTM D2671 Procedure B	.5% MAX. ASTM D570	500 V/MIL. (19.7 Kv/mm) min. ASTM D2671
HSTTA	Environmentally seals and protects components. The 3:1 shrink ratio is a benefit when working with connector to cable transitions. Suitable for damp locations.	N/A	Self Extinguishing ASTM D2671 Procedure B	1.0% MAX. ASTM D570	300 V/MIL. (11.8 Kv/mm) min. ASTM D2671
HSTT4A	Seals and protects components from moisture and corrosion. The 4:1 shrink ratio is a benefit when working with large transitions. Use where a flexible tubing is needed. Suitable for damp locations.	N/A	VW-1 per UL 224	1.0% MAX. ASTM D570	500 V/MIL. (19.7 Kv/mm) min. ASTM D2671
HSTTRA	Environmentally seals and protects components forming a rugged and heavy duty covering. The 2.5:1 shrink ratio is a benefit when working with connector to cable transitions. Suitable for damp locations.	N/A	N/A	.5% MAX. ASTM D570	500 V/MIL. (19.7 Kv/mm) min. ASTM D2671
HST	Seals and protects electrical connections and splices above or below ground, 3:1 shrink ratio. Suitable for outdoor and wet locations.	1.2 MAX.	VW-1 per UL 224	.5% MAX. ASTM D570	200 V/MIL. (7.9 Kv/mm) min. ASTM D2671

Order number of pieces required, in multiples of Standard Package Quantity.