

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

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Plastic Heat Shrink Tubing Kit Boxes – For Dry Locations

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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	–

Part Number System for Thin Wall Heat Shrink

HSTT

Type	Expanded Diameter	Tube Length	Package Quantity	Color
HSTT = Thin Wall	05 = 3/64" (1.2mm)	3 = 3" (76.2mm)	(If Tube Length Specified)	NONE = Black
HSTTV = Thin Wall VW-1	06 = 1/16" (1.6mm)	6 = 6" (152.4mm)	1 = 1 pc.	C = Clear
HSTTN = Thin Wall Neoprene	09 = 3/32" (2.4mm)	9 = 9" (228.6mm)	2 = 2 Pcs.	2 = Red
HSTTK = Thin Wall PVDF KYNAR ▲	12 = 1/8" (3.2mm)	12 = 12" (304.8mm)	3 = 3 Pcs.	4 = Yellow
HSTTT = Thin Wall TFE ‡	19 = 3/16" (4.8mm)	48 = 48" (1.2m)	5 = 5 Pcs.	5 = Green
HSTTP = Thin Wall PVC	25 = 1/4" (6.4mm)	NONE = REEL	X = 10 Pcs.	6 = Blue
HSTTPN = Crystal Clear Thin Wall PVC	38 = 3/8" (9.5mm)		Q = 25 Pcs.	10 = White
HSTTVA = Flexible Adhesive Lined	50 = 1/2" (12.7mm)		LQ = 75 Pcs.	45 = Yellow/ Green
HSTTRA = Semi-Rigid Adhesive Lined	75 = 3/4" (19.1mm)		CQ = 125 Pcs.	
HSTTA = Thin Wall Adhesive Lined	100 = 1" (25.4mm)		T = 200 Pcs.	
HSTT4A = 4:1 Thin Wall Adhesive Lined	150 = 1 1/2" (38.1mm)		TL = 250 Pcs.	
HST = Thick Wall Adhesive Lined	200 = 2" (50.8mm)		Y = 6" Pcs.	
HSEC = Heat Shrink End Caps Adhesive Lined	300 = 3" (76.2mm)			
HSECFR = Heat Shrink End Caps Flame Retardant Adhesive Lined	400 = 4" (101.6mm)			
	0.4 = .40" (10.2mm)		Reels (If No Tube Length Specified)	
	0.5 = .47" (11.9mm)		Q = 25' (7.6m)	
	0.8 = .80" (20.3mm)		L = 50' (15.2m)	
	1.0 = 1.0" (25.4mm)		C = 100' (30.5m)	
	1.1 = 1.1" (27.9mm)		T = 200' (61.0m)	
	1.5 = 1.5" (38.1mm)		D = 500' (152.4m)	
	2.0 = 2.0" (50.8mm)		M = 1000' (304.8m)	
	3.0 = 3.0" (76.2mm)			
	4.0 = 4.0" (101.6mm)			

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.

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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.

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

B1. Cable Ties

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

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