

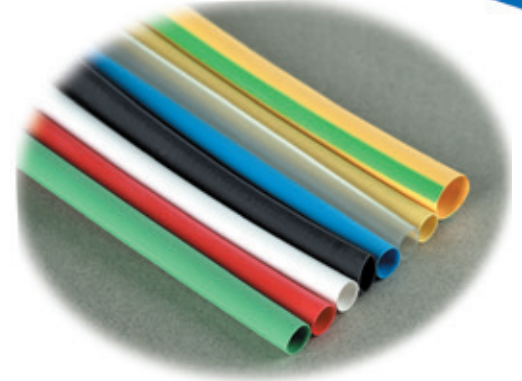
## Thin-Wall Heat-Shrinkable Tubing

### CPO Series

#### 2:1 Shrink Ratio

#### Thin-Wall Tubing, Non-Lined

- Flame-retardant, cross-linked polyolefin
- Continuous operating temperature: -55°C to 135°C
- Shrink temperature of 120°C
- Meets UL and CSA standards; MIL-DTL-23053/5 Class 1&2; AMS 3636 & 3637; DEF STAN 59-97, Issue 3, Type 2a
- Shelf life 5 years from date of manufacturing
- UV rated (ASTM G53)



#### Thin-Wall Heat-Shrinkable Tubing

Cat. No.*	Min. Expanded I.D. (in.)	Max. Recovered I.D. (in.)	Nom. Recovered Wall Thickness (in.)	Code Cable Size
CP063-_-	0.06	0.03	0.02	-
CP093-_-	0.09	0.05		-
CP0125-_-	0.13	0.06		#24-#30 AWG
CP0187-_-	0.18	0.09	0.03	#14-#22 AWG
CP0250-_-	0.25	0.13		#10-#16 AWG
CP0375-_-	0.38	0.19		#6-#12 AWG
CP0500-_-	0.50	0.25	0.04	#1-#6 AWG
CP0750-_-	0.75	0.38		4/0-#2 AWG
CP01000-_-	1.00	0.50	0.045	350-2/0 kcmil
CP01250-_-	1.25	0.625		1/0-350
CP01500-_-	1.50	0.75		2/0-500
CP02000-_-	2.00	1.00		250-1000

\*See catalogue construction to complete.  
 UL Recognized and CSA Certified. (NOTE: Clear material not UL Recognized).  
 When ordering standard package, order by package not feet.  
 Larger diameters available upon special request; contact your Regional Sales Office.  
 Order multiple for 4' sticks is 25 sticks.  
 Order multiple for reels is 1 reel.

Series	Bulk Length (ft)	Series	Bulk Reel Length (ft)
CP063 = 1/16 in.	1,000	CP0375 = 3/8 in.	500
CP093 = 3/32 in.		CP0500 = 1/2 in.	200
CP0125 = 1/8 in.		CP0750 = 3/4 in.	
CP0187 = 3/16 in.		CP01000 = 1 in.	164
CP0250 = 1/4 in.			

#### Catalogue number construction

Series	Colour	Length ft.	Final Order No.
<b>CP063</b>	<b>0</b>	<b>C</b>	<b>CP063-0-C</b>

Available Colours		Available Packaging
0 • Black	5 • Green	6 • pounce
C • Clear	6 • Blue	A • 4'
2 • Red	9 • White	25 • 25' reel
4 • Yellow	S • Green & Yellow Striped*	A • 4'
		B • Bulk
		C • 100'

\* Contact your Regional Sales Office for bulk reel quantity  
 (see page C12 for lengths)

Cat. No.	Min. Expanded I.D. (in.)	Max. Recovered I.E. (in.)	Nom. Recovered Wall Thickness (in.)	Std. Pkg. Qty.
CP063-0-6	0.06	0.03	0.02	20
CP093-0-6	0.09	0.05		
CP0125-0-6	0.13	0.06		
CP0187-0-6	0.19	0.09	0.03	
CP0250-0-6	0.25	0.13		
CP0375-0-6	0.38	0.19	0.04	10
CP0500-0-6	0.50	0.25		
CP0750-0-6	0.75	0.38		
CP01000-0-6	1.00	0.50		5

Order multiple is std. pkg.  
 Catalogue numbers listed are Black colour; other colours available upon request.  
 Contact your Regional Sales Office.

## Thin-Wall Heat-Shrinkable Tubing



### CHS-KIT Thin-Wall Insulation Kit

Cat. No.	Description	Weight Each Kit	UPC Code
CHS-KIT	43' (13 m) Assorted Colours, Sizes – Thin-Wall Heat Shrink Tubing in plastic reusable case	1 lb. / 0.45 kg	76821092835

Shrink-Kon™ Thin-Wall heat shrink kits feature useful colours and sizes in a convenient resealable storage box.

Now brought to you in colour!

Shrink-Kon's new Thin-Wall Heat Shrink Kit features a large assortment of practical colours and sizes for your demanding jobs. Great for identification and adding a professional finishing touch on wire termination projects.

- Over 43 ft. (13 m) of multi-coloured polyolefin thin-wall heat shrink
- Convenient plastic kit for single storage location
- Individual 6 in. (15 cm) pieces for easy installation
- 2:1 shrink ratio
- UL Recognized and CSA approved
- Wide range of sizes – 3/16 in. (9 mm) to 1 in. (25 mm)

### Products included in CHS-KIT

Cat. No.	Size in. (mm)	Qty/Kit	Colour Quantity Per Kit						
			Black	Clear	Blue	Yellow	Red	Green	White
CP0187+	3/16 (5)	36	6	6	4	4	6	4	6
CP0250+	1/4 (6)	24	6	4	2	2	4	2	4
CP0375+	3/8 (9)	12	2	2	2		2	2	2
CP0500+	1/2 (12)	6	1	1	1		1	1	1
CP0750+	3/4 (19)	4	1	1			1		1
CP01000+	1 (25)	4	1	1			1		1

+Actual catalogue numbers require suffix for appropriate colour

## Thin-Wall Heat-Shrinkable Tubing

### HS-KIT Thin-Wall Insulation Kit

Cat. No.	Description	Weight Each Kit	UPC Code
HS-KIT	37' (11 m) Assorted Sizes – Black Colour Thin-Wall Heat Shrink Tubing in plastic reusable case	1 lb. /0.45 kg	76821093898



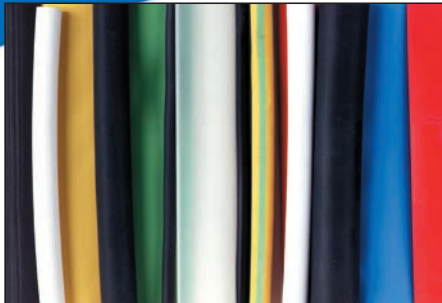
### The Original Black Version HS-KIT

- Over 37 ft. (11 m) of black polyolefin thin-wall heat shrink
- Convenient plastic kit for single storage location
- Individual 6 in. (15 cm) pieces for easy installation
- 2:1 shrink ratio
- UL Recognized and CSA approved

### Products included in HS-KIT

Cat. No.	Size in. (mm)	Qty./Kit
CP0187-0-6	3/16 (5)	32
CP0250-0-6	1/4 (6)	20
CP0375-0-6	3/8 (9)	8
CP0500-0-6	1/2 (12)	6
CP0750-0-6	3/4 (19)	4
CP01000-0-6	4 (25)	4

## Thin-Wall Heat-Shrinkable Tubing



**Custom order lengths for those special jobs! 2:1 Shrink Ratio**  
**Custom-Cut Length of Bulk Packaging – Thin-Wall Tubing**

To best meet your requirements for thin-wall heat-shrinkable tubing, Thomas & Betts welcomes the opportunity to cut bulk reels of tubing. Minimum order requirement is one standard bulk reel, and multiples thereof. See table for bulk reel length by size. Tubing cannot be cut smaller than 1/2 in. When ordering custom-cut lengths of tubing, order by piece, not by length. To determine the minimum number of pieces to order, simply figure how many pieces of a specific length of tubing is required to make use of a complete bulk reel.

Series	Bulk Reel Length (ft)	Series	Bulk Reel Length (ft)
CPO63 = 1/16 in.	1,000	CPO375 = 3/8 in.	500
CPO93 = 3/32 in.		CPO500 = 1/2 in.	200
CPO125 = 1/8 in.		CPO750 = 3/4 in.	100
CPO187 = 3/16 in.		CPO1000 = 1 in.	
CPO250 = 1/4 in.	500		

### Example 1

If a bulk length of tubing is 1,000 ft. and the desired length of each individual piece is 6 in., the minimum order requirement is 2,000 pieces.

Given (length of reel) ..... 1,000  
 Convert to inches by multiplying by 12 ..... 12 x 1,000  
 Length of reel in inches ..... = 12,000  
 Divide by desired length 1 ..... 2,000 ÷ 6  
 Total number of 6 in. pieces  
 in a 1,000' reel (Minimum Order) ..... = 2,000

### Example 2

If a bulk reel of tubing is 400 ft. and the desired length of each individual piece is 2 in., the minimum order requirement is 2,400 pieces.

Given (length of reel) ..... 400  
 Convert to inches by multiplying by 12 ..... 12 x 400  
 Length of reel in inches ..... = 4,800  
 Divide by desired length ..... 4,800 ÷ 2  
 Total number of 2 in. pieces  
 in a 400' reel (Minimum Order) ..... = 2,400

Contact your Regional Sales Office for pricing and availability on cut pieces

CUT PIECE CATALOGUE NO. CONSTRUCTION			
Thin-Wall Series	Minimum Expanded I.D. (in.)	Colour	Length (in.)
CPO = Corss-linked modified Polyolefin	63 = 0.063	0 - Black	XXXX – 4 digits specify length of cut in inches
	93 = 0.093	C = Clear	
	125 = 0.125	2 = Red	
	187 = 0.187	4 = Yellow	
	250 = 0.250	5 = Green	
	375 = 0.375	6 = Blue	
	500 = 0.500	9 = White	
	750 = 0.750	S = Green & Yellow Striped	
	1000 = 1.000		

### CPO Series Specifications

Property	Test Method	Typical Performances
<b>Physical</b>		
<b>Tensile Strength</b>	ASTM D412, ISO 37	2200 psi (15.0 MPa)
<b>Elongation</b>		400%
<b>Longitudinal Change</b>	ASTM D2671	+1%, -10%
<b>2% Secant Modulus</b>		16,000 psi (110 MPa)
<b>Specific Gravity</b>	ASTM D792, ISO/R1183	1.3 in. (colours) 0.95 in. (clear)
<b>Restricted Shrinkage</b>	ASTMD2671	No cracking
<b>Elongation after Heat Aging (168 hrs. at 175°C)</b>		350%
<b>Heat Shock (4 hrs. at 250°C)</b>		No cracking or flowing
<b>Low Temperature Flexibility (4 hrs. at -55°C)</b>		No cracking or splitting
<b>Flammability</b>		Flame-Retardant (except Clear)
<b>Electrical</b>		
<b>Dielectric Strength</b>	ASTM D2671, IEC 243	600 V/Mil (24kV/mm)
<b>Volume Resistivity</b>	ASTM D2671	1016 ohm-cm
<b>Chemical</b>		
<b>Fluid Resistance</b>	MIL-DTL-23053/5, ISO 1817, ISO 37	Good to Excellent
<b>Fungus Resistance</b>	ASTM G21	No growth
<b>Copper Corrosion</b>	ASTM D2671	No corrosion
<b>Water Absorption</b>	ASTM D570	0.2%

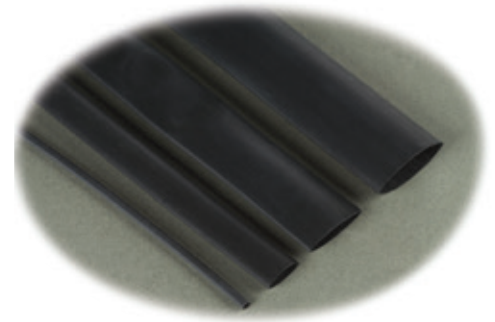
## Thin-Wall Heat-Shrinkable Tubing

### CPO-A Series

#### 3:1 Shrink Ratio

#### Thin-Wall, Adhesive Lined

- Adhesive lined for moisture-proof environmental seal
- High 3:1 shrink ratio for covering irregularly shaped objects
- Continuous operating temperature: -55°C to 110°C
- Shrink temperature: 120°C
- UV rated (ASTM G53)



#### Thin-Wall Heat-Shrinkable Tubing

Cat. No.	Min. Expanded I.D. (in.)	Max. Expanded I.D. (in.)	Nom. Recovered Wall (in.)	Code Cable Size	Standard Length (in.)	Std. Pkg. Qty.
CPO-A-125-48	0.13	0.02	0.04	#24-#30 AWG	48	25
CPO-A-187-48	0.18	0.06	0.05	#14-#22 AWG		
CPO-A-250-48	0.25	0.08		#10-#22 AWG		
CPO-A-375-48	0.38	0.14	0.07	#6-#16 AWG		
CPO-A-500-48	0.50	0.19		#2-#12 AWG		
CPO-A-750-48	0.75	0.31		3/0-#4 AWG		

Note: Non-standard colours, sizes, and lengths available subject to your Regional Sales Office quotation.  
Standard colour: Black

### CPO-A Series Specifications

Property	Test Method	Typical Performances
<b>Physical</b>		
Tensile Strength	ASTM D412, ISO 37	2200 psi (15.0 MPa)
Elongation		400%
Heat Shock (4 hrs. at 250°C)	ASTM D2671	No cracking or flowing
Longitudinal Change		+/-5%
Low Temperature Flexibility (4 hrs. at -55°C)		No cracking
Specific Gravity	ASTM D792, ISO/R1183	1.1
2% Secant Modulus	ASTM D2671	1600 psi (110 MPa)
Heat-Resistant Properties (168 hrs. at 175°C)	MIL-DTL-23053/4	240%
Flammability	ASTM D2671	Moderately Flame Retardant
<b>Electrical</b>		
Dielectric Strength	ASTM D2671, IEC 243	600 V/Mil (24kV/mm)
Volume Resistivity	ASTM D2671	1016 ohm-cm
<b>Chemical</b>		
Fluid Resistance	MIL-DTL-23053/5, ISO 1817, ISO 37	Good to Excellent
Fungus Resistance	ASTM G21	No growth
Copper Corrosion	ASTM D2671	No corrosion
Water Absorption	ASTM D570	0.2%

## Thin-Wall Heat-Shrinkable Tubing

### CHS Series – Clear Thin-Wall PVC Heat Shrink

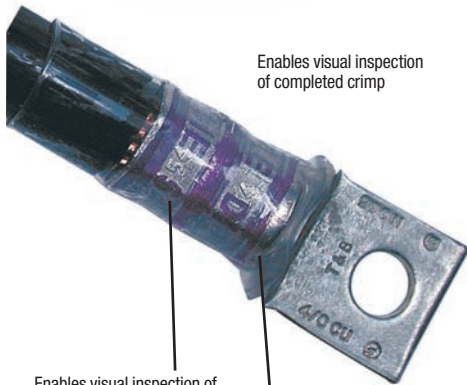
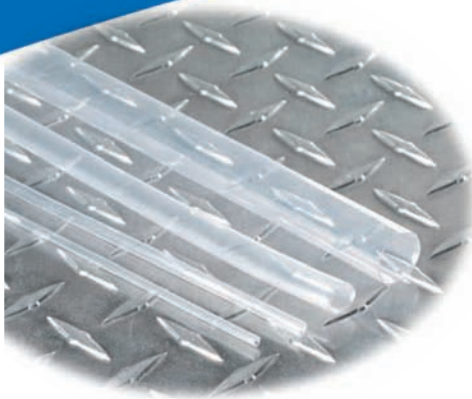
- Clear shrink enables user to inspect die and crimp details after installation
- Flexible PVC tubing is suitable for industrial and electronic applications
- UL Listed, VW-1 rated
- CSA approved
- Flame-retardant
- Low shrink temperature of 110°C
- Dielectric strength — 600 V/MIL



#### Thin-Wall Heat-Shrinkable Tubing

Cat. No.	Min. Expanded I.D. (in.)	Max. Recovered I.D. (in.)	Nominal Recovered Wall (in.)	Code Cable Size	Std. Length (ft.)	Std. Pkg. Qty.
CHS18	0.13	0.06	0.02	#22–#18 AWG	50	1
CHS18B					250	
CHS14	0.25	0.13	0.03	#16–#10 AWG	50	
CHS14B					250	
CHS38	0.38	0.19	0.03	#8–#6 AWG	50	
CHS38B					250	
CHS12	0.50	0.25	0.04	#4–#2 AWG	50	
CHS12B					250	
CHS34	0.75	0.38	0.04	#1–3/0 kcmil	50	
CHS34B					250	
CHS100	1.00	0.50	0.04	4/0–300 kcmil	25	
CHS100B					100	
CHS112	1.50	0.75	0.05	350–700 kcmil	25	
CHS112B					100	
CHS200	2.00	1.00	0.05	750–1,000 kcmil	25	
CHS200B					100	

Standard package is in reels. Order by reel; not by feet



Enables visual inspection of completed crimp

Enables visual inspection of embossed die code

Inspection of cable through peep hole shows that cable is properly positioned

### CHS Series Specifications

Property	Test Method	Typical Performances
<b>Physical</b>		
Tensile Strength	ASTM D412, ISO 37	3300 psi (23.0 MPa)
Elongation		300%
Longitudinal Change	ASTM D2671	+/-10%
2% Secant Modulus		16,000 psi (110 MPa)
Specific Gravity	ASTM D792, ISO/R1183	1.31
Elongation after Heat Aging (168 hrs. at 136°C)	ASTM D2671, ISO 37	250%
Heat Shock (4 hrs. at 250°C)		No cracking or flowing
Low Temperature Flexibility (1 hrs. at 10°C)	ASTM D2671	No cracking or slitting
Flammability		Self Extinguishing
<b>Electrical</b>		
Dielectric Strength	ASTM D2671, IEC 243	600 V/Mil (24kV/mm)
Volume Resistivity	ASTM D2671	1016 ohm-cm
<b>Chemical</b>		
Fluid Resistance	MIL-DTL-23053/5, ISO 1817, ISO 37	Good to Excellent
Fungus Resistance	ASTM G21	No growth
Copper Corrosion	ASTM D2671	No corrosion
Water Absorption	ASTM D570	0.3%