

# FIT<sup>®</sup> Heat-Shrink Tubing



# FIT® Heat-Shrink Tubing



**W**hether your concerns are mechanical strain relief, environmental sealing, or organizing wires, Alpha Wire's FIT heat-shrink tubing is ideal for solving many challenges in electrical and electronic wiring:

- **Protect substrates from moisture, UV light, corrosion, oxidation, dust, chemicals, abrasion, environmental conditions, solder joints, and encapsulates**
- **Insulate wire terminations and connections, entire printed circuit boards, from electrical and environmental conditions**
- **Repair cable splices, insulation damage and cuts, cable jackets, and connections, with permanent or temporary quick fixes**
- **Relieve strain on cables and connectors to prevent harmful flexing or bending**
- **Bundle and organize wire harness, cable, tubing, and hose dressing on OEM equipment, breakouts, bundle in small spaces, conform to odd shapes**
- **Seal connections, backshells, and other gaps from moisture and other contaminants**
- **Identify circuits through color coding, grouping, and labeling**

## FIT heat-shrink products

Our FIT heat-shrink tubing offers a reliable way to protect and seal terminations or add additional mechanical ruggedness. FIT preferred heat-shrink products are made from premium compounds under the tightest manufacturing controls. This means FIT tubing consistently provides excellent physical characteristics such as low longitudinal shrinkage and wide temperature ranges while providing an elegant appearance when used alone or on OEM equipment.

The FIT line consists of various tubing types, each designed with unique attributes that offer tubing solutions for the broadest possible range of applications and environments. FIT products are always in stock and come in an unprecedented variety of package sizes.

Beyond the widely used polyolefin tubing that is suited to the broadest range of general-purpose needs, we offer a number of other materials for higher or lower shrink temperatures, wider operating temperatures, and such special needs as outstanding chemical resistance or increased flexibility.

Material	Features	Shrink Temperature	Shrink Ratio (approx.)	FIT Family
<b>Single-Wall Cross-linked Polyolefin for General-Purpose Use</b>				
<b>Cross-linked polyolefin</b>	General-purpose heat-shrink tubing Range of shrink ratios	90°C	2:1	FIT-221
		90°C	4:1	FIT-421
<b>Flame-retardant cross-linked polyolefin</b>	Low shrink temp Passes UL VW-1 flame test	90°C	2:1	FIT-221V
		90°C	3:1	FIT-321V
<b>Cross-linked polyolefin</b>	Approved for 600-V ground lead identification Green with yellow stripe Passes UL VW-1 flame test	90°C	2:1	FIT-260
<b>Semirigid cross-linked polyolefin</b>	30% stronger and 25% stiffer than standard polyolefin	110°C	2:1	FIT-295
<b>Dual-Wall Polyolefin for Additional Sealing</b>				
<b>Surface cross-linked, dual extruded</b>	Meltable inner wall to encapsulate without adhesive	140°C	2.5:1	FIT-300
		110°C	3:1	FIT-321
		121°C	5.6:1	FIT-621
<b>Bonding, thermoplastic adhesive lined</b>	Bonds to most materials High voltage: to 2 kV at 90°C continuous use	120°C	3:1	FIT-700
<b>Bonding, adhesive lined</b>	Permanent water and corrosion protection	110°C	2:1	FIT-750
<b>Special-Application Tubing</b>				
<b>Irradiated PVC</b>	Low shrink temperature Passes UL VW-1 flame test 30% stronger than standard polyolefin	100°C	2:1	FIT-105
<b>Cross-linked PVDF</b>	High shrink temperature Fast recovery time Excellent chemical, heat, and flame resistance Passes UL VW-1 flame test 3x the tensile strength of standard polyolefin	170°C	2:1	FIT-350
<b>FEP</b>	High shrink temperature Excellent chemical resistance Excellent dielectric properties Thinnest wall thickness available	200°C	1.2:1	FIT-400
<b>PTFE</b>	High shrink temperature Excellent chemical resistance Excellent dielectric properties Very thin wall thickness	250°C	1.5:1	FIT-500
<b>Chlorinated polyolefin</b>	Highly flexible Oil and abrasion resistant Passes UL VW-1 flame test	130°C	2:1	FIT-600
<b>Flexible fluoroelastomer</b>	High shrink temperature Excellent chemical resistance Flexible	120°C	2:1	FIT-650
<b>Polyethylene/polyester</b>	Superior abrasion resistance Excellent flexibility Resists harsh environments	80°C	2:1	FIT-FABRIC
<b>Cross-linked silicone rubber</b>	High flexibility available Pliable Scrape abrasion resistant Passes UL VW-1 flame test	200°C	1.7:1	FIT-FLEX
<b>Cross-linked PVDF</b>	Transparent after shrink Fast recovery time Excellent chemical, heat, and flame resistance Passes UL VW-1 flame test 2x the tensile strength of standard polyolefin	150°C	2:1	FIT-CLEAR

## Heat Guns

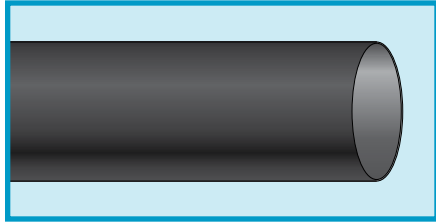
Alpha heat guns are the perfect complement to our tubing, making it easy to apply FIT heat-shrink tubing quickly and efficiently.

The lightweight, durable guns are designed to make application of heat-shrink tubing fast and reliable. They are well suited to both industrial production and field use.



# Heat-Shrink Tubing

FIT®-105 Heat-Shrink Tubing  
2:1 Shrink Ratio, Irradiated PVC



**AMS DTL-23053/2 Class 1**  
(except longitudinal shrinkage)  
**UL 224 VW-1**  
**CSA 198**

- Low shrink temperature
- Fast recovery time
- 30% stronger than standard polyolefin
- Low water absorption
- UV resistant

### Operating Temperature

- -20°C to +105°C

### Shrink Temperature

- 100°C min.
- 105°C full recovery

### Material

- Irradiated PVC

### Color

- Black

### Physical Properties

- Tensile strength: 3000 psi (20.68 N/mm<sup>2</sup>)
- Elongation: 300% min
- Longitudinal change: +1%/-25%
- Specific gravity: 1.32
- Flame retardant
- Shelf life: 1 year at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 1.0% max.
- Lead free

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 1083 V/mil (426.3 kV/cm)
- Volume resistivity: 10<sup>12</sup> ohm-cm

### Availability

See table

Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	Ft	m
<b>FIT-105-3/64</b>	0.046	1.17	0.023	0.58	0.020	0.51	25, 100, 500, 1000	7.6, 30.5, 152, 305
<b>FIT-105-1/16</b>	0.062	1.57	0.031	0.79	0.020	0.51	25, 100, 500, 1000	7.6, 30.5, 152, 305
<b>FIT-105-3/32</b>	0.093	2.36	0.046	1.17	0.020	0.51	25, 100, 1000	7.6, 30.5, 305
<b>FIT-105-1/8</b>	0.125	3.18	0.062	1.57	0.025	0.64	25, 100, 1000	7.6, 30.5, 305
<b>FIT-105-3/16</b>	0.187	4.75	0.093	2.36	0.025	0.64	25, 100, 1000	7.6, 30.5, 305
<b>FIT-105-1/4</b>	0.250	6.35	0.125	3.18	0.025	0.64	25, 100, 1000	7.6, 30.5, 305
<b>FIT-105-3/8</b>	0.375	9.53	0.187	4.75	0.030	0.76	25, 100, 500	7.6, 30.5, 152
<b>FIT-105-1/2</b>	0.500	12.70	0.250	6.35	0.030	0.76	25, 100, 250	7.6, 30.5, 76.2
<b>FIT-105-3/4</b>	0.750	19.05	0.375	9.53	0.035	0.89	25, 100, 250	7.6, 30.5, 76.2
<b>FIT-105-1IN</b>	1.000	25.40	0.500	12.70	0.040	1.02	25, 100, 250	7.6, 30.5, 76.2
<b>FIT-105-1-1/2</b>	1.500	38.10	0.750	19.05	0.045	1.14	25, 100	7.6, 30.5

### Packaged Assortments

Assorted sizes of 6”  
(15 cm) lengths

#### FIT-105-MS-1

Contents	Tubing Size		Quantity
	Inch	mm	
<b>FIT-105-3/64</b>	0.046	1.17	10
<b>FIT-105-1/16</b>	0.062	1.57	10
<b>FIT-105-3/32</b>	0.093	2.36	10
<b>FIT-105-1/8</b>	0.125	3.18	10
<b>FIT-105-3/16</b>	0.187	4.75	10
<b>FIT-105-1/4</b>	0.250	6.35	10

#### FIT-105-MS-2

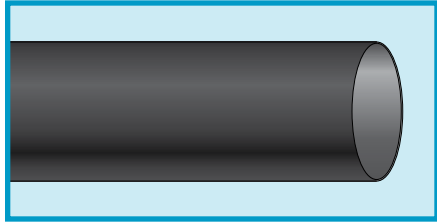
Contents	Tubing Size		Quantity
	Inch	mm	
<b>FIT-105-3/8</b>	0.375	9.53	10
<b>FIT-105-1/2</b>	0.500	12.70	10
<b>FIT-105-3/4</b>	0.750	19.05	10
<b>FIT-105-1 IN</b>	1.000	25.40	10



# Heat-Shrink Tubing

## FIT®-221 Heat-Shrink Tubing

2:1 Shrink Ratio, XLPO



**AMS-DTL-23053/5 Class 1  
(except clear)**

**AMS-DTL-23053/5 Class 2  
(clear)**

**UL 224 (except clear)**

**CSA 198 (except clear)**

- Excellent general-purpose tubing
- Low water absorption
- UV resistant (black only)

### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL, CSA)

### Shrink Temperature

- 90°C min.
- 121°C full recovery

### Material

- Cross-linked polyolefin

### Color

- Black, white, red, yellow, blue, green, clear\*

\*Clear tubing may exhibit some color tint that is the result of the product's chemistry; the tint is variable and can be any color

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±5%

- Specific gravity: 1.35 (colors)/1.00 (clear)
- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max.
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- Lead free

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

### Availability

See table, next page

Spools may contain multiple lengths

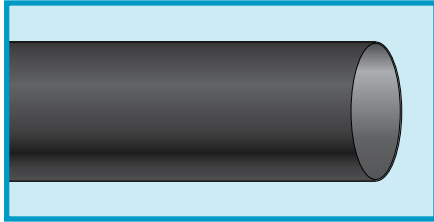
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.	
	Inch	mm	Inch	mm	Inch	mm
FIT-221-3/64	0.046	1.17	0.023	0.58	0.016	0.41
FIT-221-1/16	0.063	1.60	0.031	0.79	0.017	0.43
FIT-221-3/32	0.093	2.36	0.046	1.17	0.020	0.51
FIT-221-1/8	0.125	3.18	0.062	1.57	0.020	0.51
FIT-221-3/16	0.187	4.75	0.093	2.36	0.020	0.51
FIT-221-1/4	0.250	6.35	0.125	3.18	0.025	0.64
FIT-221-3/8	0.375	9.53	0.187	4.75	0.025	0.64
FIT-221-1/2	0.500	12.70	0.250	6.35	0.025	0.64
FIT-221-3/4	0.750	19.05	0.375	9.53	0.030	0.76
FIT-221-1IN	1.000	25.40	0.500	12.70	0.035	0.89
FIT-221-1-1/2	1.500	38.10	0.750	19.05	0.040	1.02
FIT-221-2IN	2.000	50.80	1.000	25.40	0.045	1.14
FIT-221-3IN	3.000	76.20	1.500	38.10	0.050	1.27
FIT-221-4IN	4.000	101.60	2.000	50.80	0.055	1.40



# Heat-Shrink Tubing

FIT®-221 Heat-Shrink Tubing

2:1 Shrink Ratio, XLPO



**AMS-DTL-23053/5 Class 1  
(except clear)**

**AMS-DTL-23053/5 Class 2  
(clear)**

**UL 224 (except clear)**

**CSA 198 (except clear)**

## Availability

Part No.	Spools		Qty, Cut Pieces at Length			
	Ft	m	4 ft (1.2 m)	6" (152 mm)	1" (25.4 mm)	0.5" (12.7 mm)
FIT-221-3/64	1000*	305*	25	40	1000	1000
FIT-221-1/16	70, 100*, 1000	21.3, 30.5*, 305	25	36	1000	1000
FIT-221-3/32	65, 100*, 500	19.8, 30.5*, 152	25	32	1000	1000
FIT-221-1/8	60, 100*, 500	18.2, 30.5*, 152	25	28	1000	1000
FIT-221-3/16	50, 100*, 500	15.2, 30.5*, 152	25	24	1000	1000
FIT-221-1/4	40, 100*, 250	12.2, 30.5, 76.2*	25	20	1000	1000
FIT-221-3/8	35, 50*, 200	10.6, 15.2*, 60.9	25	16	1000	1000
FIT-221-1/2	32, 50*, 150	9.7, 15.2*, 45.7	5	14	—	—
FIT-221-3/4	24, 50*, 250	7.3, 15.2*, 76.2	5	12	—	—
FIT-221-1IN	16, 50*, 250	4.8, 15.2, 76.2	5	8	—	—
FIT-221-1-1/2	125*	38.1*	5	5	—	—
FIT-221-2IN	125*	38.1*	5	3	—	—
FIT-221-3IN	100*	30.5*	2	2	—	—
FIT-221-4IN	50*	15.2*	2	—	—	—

\*Black and clear tubing only.

Spools may contain multiple lengths.

## Packaged Assortments

Assorted sizes of 6"  
(152 mm) lengths

Each length is size identified.

**FIT-221-MS-1** Assorted colors: Black, blue, red, green, yellow

Contents	Tubing Size		Quantity
	Inch	mm	
<b>FIT-221-3/64</b>	0.046	1.17	6
<b>FIT-221-1/16</b>	0.063	1.60	6
<b>FIT-221-3/32</b>	0.093	2.36	6
<b>FIT-221-1/8</b>	0.125	3.18	6
<b>FIT-221-3/16</b>	0.187	4.75	6

**FIT-221-MS-2** Assorted colors: Black, blue, red, yellow

Contents	Tubing Size		Quantity
	Inch	mm	
<b>FIT-221-1/4</b>	0.250	6.35	4
<b>FIT-221-3/8</b>	0.375	9.53	4
<b>FIT-221-1/2</b>	0.500	12.70	4
<b>FIT-221-3/4</b>	0.750	19.05	4

## FIT-221 Kits

### FIT-KIT-221BK

Colors: Black

Contents	Tubing Size		Quantity
	Inch	mm	
<b>FIT-221-3/16</b>	0.187	4.75	25
<b>FIT-221-1/4</b>	0.250	6.35	20
<b>FIT-221-3/8</b>	0.375	9.53	15
<b>FIT-221-1/2</b>	0.500	12.70	10
<b>FIT-221-3/4</b>	0.750	19.05	6
<b>FIT-221-1IN</b>	1.000	25.40	4

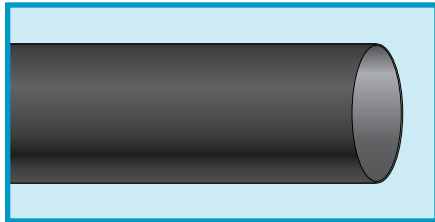
**FIT-KIT-221C** Assorted colors: Black, blue, red, white, green, yellow, clear

Contents	Tubing Size		Quantity	
	Inch	mm	Each Color	Total
<b>FIT-221-3/32</b>	0.093	2.36	4	28
<b>FIT-221-1/8</b>	0.125	3.18	3	21
<b>FIT-221-3/16</b>	0.187	4.75	3	21
<b>FIT-221-1/4</b>	0.250	6.35	3	21
<b>FIT-221-3/8</b>	0.375	9.53	2	14
<b>FIT-221-1/2</b>	0.500	12.70	2	14



# Heat-Shrink Tubing

FIT®-221B Heat-Shrink Tubing  
2:1 Shrink Ratio, XLPO, Bulk Packaging



**AMS-DTL-23053/5 Class 1 (except clear)**  
**AMS-DTL-23053/5 Class 2 (clear)**  
**UL 224 (except clear)**  
**CSA 198 (except clear)**

- Excellent general-purpose tubing
- Low shrink temperature
- Fastest recovery time
- Low water absorption
- UV resistant (black only)

### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL, CSA)

### Shrink Temperature

- 90°C min.
- 121°C full recovery

### Material

- Cross-linked polyolefin

### Colors

- Black, blue, clear\*

\*Clear tubing may exhibit some color tint that is the result of the product's chemistry; the tint is variable and can be any color

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±5%

- Specific gravity: 1.35 (colors)/1.00 (clear)
- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max.
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- Lead free

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

### Availability

See table

Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.	
	Inch	mm	Inch	mm	Inch	mm
FIT-221B-3/64	0.046	1.17	0.023	0.58	0.016	0.41
FIT-221B-1/16	0.063	1.60	0.031	0.79	0.017	0.43
FIT-221B-3/32	0.093	2.36	0.046	1.17	0.020	0.51
FIT-221B-1/8	0.125	3.18	0.062	1.57	0.020	0.51
FIT-221B-3/16	0.187	4.75	0.093	2.36	0.020	0.51
FIT-221B-1/4	0.250	6.35	0.125	3.18	0.025	0.64
FIT-221B-3/8	0.375	9.53	0.187	4.75	0.025	0.64
FIT-221B-1/2	0.500	12.70	0.250	6.35	0.025	0.64
FIT-221B-3/4	0.750	19.05	0.375	9.53	0.030	0.76
FIT-221B-1IN	1.000	25.40	0.500	12.70	0.035	0.89

### Availability

Part No.	Spools (Length x No. of Spools)		Qty, Cut Pieces at Length 4 ft (1.2 m)
	Ft	m	
FIT-221B-3/64	1000 x 3	305 x 3	250
FIT-221B-1/16	1000 x 3	305 x 3	250
FIT-221B-3/32	500 x 3	152 x 3	250
FIT-221B-1/8	500 x 3	152 x 3	250
FIT-221B-3/16	500 x 2	152 x 2	250
FIT-221B-1/4	250 x 2	76.2 x 2	250
FIT-221B-3/8	200 x 2	60.9 x 2	250
FIT-221B-1/2	150 x 2	45.7 x 2	200
FIT-221B-3/4	250 x 1 250 x 2	76.2 x 1 76.2 x 2	125
FIT-221B-1IN	250 x 1	76.2 x 1	75

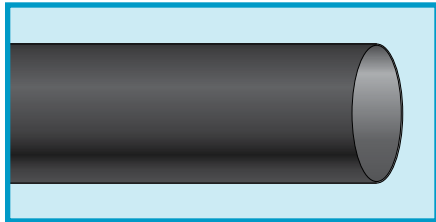




# Heat-Shrink Tubing

## FIT®-221V Heat-Shrink Tubing

### 2:1 Shrink Ratio, XLPO, Low Shrink Temperature



**AMS DTL-23053/5 Class 1 and 3**  
**UL 224 VW-1**  
**CSA 198**

- Excellent general-purpose tubing
- Low shrink temperature
- Fastest recovery time
- Low water absorption
- UV resistant (black only)

#### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL, CSA)

#### Shrink Temperature

- 90°C min.
- 121°C full recovery

#### Material

- Cross-linked polyolefin

#### Colors

- Black, white, red, yellow, green, blue

#### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±5%
- Specific gravity: 1.35
- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

#### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max.
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- Lead free

#### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

#### Availability

See table

Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.	
	Inch	mm	Inch	mm	Inch	mm
FIT-221V-3/64	0.046	1.17	0.023	0.58	0.016	0.41
FIT-221V-1/16	0.063	1.60	0.031	0.79	0.017	0.43
FIT-221V-3/32	0.093	2.36	0.046	1.17	0.020	0.51
FIT-221V-1/8	0.125	3.18	0.062	1.57	0.020	0.51
FIT-221V-3/16	0.187	4.75	0.093	2.36	0.020	0.51
FIT-221V-1/4	0.250	6.35	0.125	3.18	0.025	0.64
FIT-221V-3/8	0.375	9.53	0.187	4.75	0.025	0.64
FIT-221V-1/2	0.500	12.70	0.250	6.35	0.025	0.64
FIT-221V-3/4	0.750	19.05	0.375	9.53	0.030	0.76
FIT-221V-1IN	1.000	25.40	0.500	12.70	0.035	0.89
FIT-221V-1-1/2	1.500	38.10	0.750	19.05	0.040	1.02
FIT-221V-2IN	2.000	50.80	1.000	25.40	0.045	1.14

#### Availability

Part No.	Spools (Length x No. of Spools)		Qty, Cut Pieces at Length	
	Ft	m	4 ft (1.2 m)	6" (152 mm)
FIT-221V-3/64	1000 x 3	305 x3	25, 250	40
FIT-221V-1/16	1000 x 1, 1000 x 3	305 x 1, 305 x 3	25, 250	36
FIT-221V-3/32	500 x 1, 500 x 3	152 x 1, 152 x 3	25, 250	32
FIT-221V-1/8	500 x 1, 500 x 3	152 x 1, 152 x 3	25, 250	28
FIT-221V-3/16	500 x 1, 500 x 2	152 x 1, 152 x 2	25, 250	24
FIT-221V-1/4	250 x 1, 250 x 2	76.2 x 1, 76.2 x 2	25, 250	20
FIT-221V-3/8	200 x 1, 200 x 2	60.9 x 1, 60.9 x 2	25, 250	16
FIT-221V-1/2	150 x 1, 150 x 2	45.7 x 1, 45.7 x 2	5, 200	14
FIT-221V-3/4	250 x 1	76.2 x 1	5, 125	12
FIT-221V-1IN	250 x 1	76.2 x 1	5, 75	8
FIT-221V-1-1/2	125 x 1	38.1 x 1	5	5
FIT-221V-2IN	125 x 1	38.1 x 1	5	3

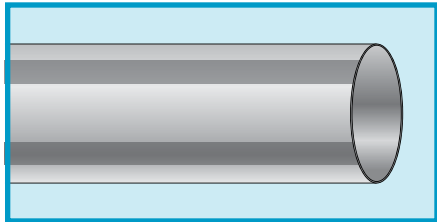




# Heat-Shrink Tubing

## FIT®-260 Heat-Shrink Tubing

### 2:1 Shrink Ratio, XLPO, Ground Lead Identification



#### UL 224 VW-1 CSA 198

- Excellent general-purpose tubing
- Low water absorption

#### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL, CSA)

#### Shrink Temperature

- 90°C min.
- 120°C full recovery

#### Material

- Cross-linked polyolefin

#### Color

- Green/yellow

#### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±5%
- Specific gravity: 1.35
- Flame retardant
- Shelf life: 25 years at 18°C to 35°C

#### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max.
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- Lead free

#### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

#### Availability

See table

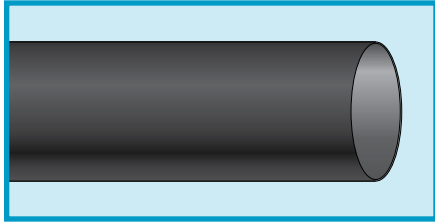
Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	Ft	m
<b>FIT-260-1/8</b>	0.125	3.18	0.062	1.57	0.020	0.51	500	152
<b>FIT-260-1/4</b>	0.250	6.35	0.125	3.18	0.025	0.64	250	76.2
<b>FIT-260-3/8</b>	0.375	9.53	0.187	4.75	0.025	0.64	250	76.2
<b>FIT-260-1/2</b>	0.500	12.70	0.250	6.35	0.025	0.64	250	76.2
<b>FIT-260-3/4</b>	0.750	19.05	0.375	9.53	0.030	0.76	250	76.2
<b>FIT-260-1</b>	1.000	25.40	0.500	12.70	0.035	0.89	100	30.5



# Heat-Shrink Tubing

FIT®-295 Heat-Shrink Tubing  
2:1 Shrink Ratio, Semirigid XLPO



**AMS-DTL-23053/6 Class 1 (Black)**

**AMS-DTL-23053/6 Class 2 (Clear)**

**UL 224 VW-1 (Black)**

**CSA 198 (Black)**

- 30% stronger than standard XLPO
- 25% stiffer than standard XLPO
- Low water absorption
- UV resistant (black only)

### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL, CSA)

### Shrink Temperature

- 110°C min.
- 135°C full recovery

### Material

- Semirigid cross-linked polyolefin

### Colors

- Black, clear

### Physical Properties

- Tensile strength: 2000 psi (17.79 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±5%
- Specific gravity: 1.35 (black)/1.00 (clear)
- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max. (black)/0.02% max. (clear)
- Lead free

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

### Availability

See table

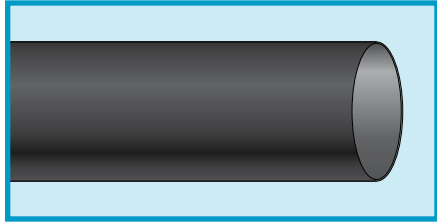
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability Qty, Cut Pieces at Length	
	Inch	mm	Inch	mm	Inch	mm	4 ft (1.2 m)	6" (152 mm)
<b>FIT-295-3/64</b>	0.046	1.17	0.023	0.58	0.020	0.51	25	40
<b>FIT-295-1/16</b>	0.063	1.60	0.031	0.79	0.020	0.51	25	36
<b>FIT-295-3/32</b>	0.093	2.36	0.046	1.17	0.020	0.51	25	32
<b>FIT-295-1/8</b>	0.125	3.18	0.062	1.57	0.020	0.51	25	28
<b>FIT-295-3/16</b>	0.187	4.75	0.093	2.36	0.025	0.64	25	24
<b>FIT-295-1/4</b>	0.250	6.35	0.125	3.18	0.025	0.64	25	20
<b>FIT-295-3/8</b>	0.375	9.53	0.187	4.75	0.030	0.76	25	16
<b>FIT-295-1/2</b>	0.500	12.70	0.250	6.35	0.030	0.76	5	14



# Heat-Shrink Tubing

## FIT®-300 Heat-Shrink Tubing

### 2.5:1 Shrink Ratio, Dual-Wall Semirigid XLPO



#### AMS-DTL-23053/4 Class 1 UL 224 (Except clear)

- Meltable inner wall for encapsulation without adhesives
- Thicker wall for added protection
- High shrink ratios
- Excellent dielectric properties

#### Applications

- Temporary sealing without sticky residue
- Substrates requiring filled interstices

#### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL)

#### Shrink Temperature

- 140°C min.

#### Material

- Dual-wall semirigid cross-linked polyolefin

#### Colors

- Black, white, red, yellow, blue, slate, brown

#### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min

- Longitudinal change: +1%/-10%
- Specific gravity: 0.99
- Shelf life: 3 years at 18°C to 35°C

#### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- Lead free
- Halogen free

#### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>16</sup> ohm-cm

#### Availability

See table

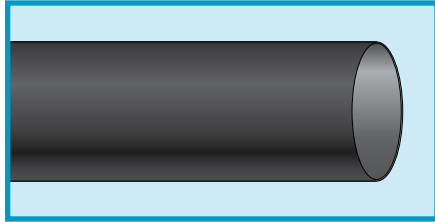
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability Qty, Cut Pieces at Length	
	Inch	mm	Inch	mm	Inch	mm	4 ft (1.2 m)	6" (152 mm)
<b>FIT-300-1/8</b>	0.125	3.18	0.023	0.58	0.038	0.97	25	14
<b>FIT-300-3/16</b>	0.187	4.75	0.060	1.52	0.043	1.09	25	12
<b>FIT-300-1/4</b>	0.250	6.35	0.080	2.03	0.047	1.19	25	10
<b>FIT-300-3/10</b>	0.300	7.62	0.050	1.27	0.100	2.54	25	4
<b>FIT-300-3/8</b>	0.375	9.53	0.135	3.43	0.050	1.27	25	8
<b>FIT-300-1/2</b>	0.500	12.70	0.195	4.95	0.055	1.40	5	6
<b>FIT-300-3/4</b>	0.750	19.05	0.313	7.95	0.065	1.65	5	4
<b>ST-3001-IN</b>	1.000	25.40	0.400	10.16	0.075	1.91	5	--



# Heat-Shrink Tubing

FIT®-321 Heat-Shrink Tubing

3:1 Shrink Ratio, Dual-Wall XLPO, Adhesive Lined



**AMS-DTL-23053/4 Class 3  
UL 224  
CSA 198**

- Thicker wall for increased durability
- Water-resistant inner permanent-bonding adhesive

### Operating Temperature

- -55°C to +125°C

### Shrink Temperature

- 110°C min.
- 110°C full recovery

### Material

- Dual-wall flexible polyolefin with thick-wall adhesive

### Color

- Black

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 250% min
- Longitudinal change: +1%/-15%
- Flame tested
- Shelf life: 3 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 1.0% max
- Fluid resistance: 900 psi (6.20 N/mm<sup>2</sup>)
- UV resistant
- Lead free

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 300 V/mil (118 kV/cm)
- Volume resistivity: 10<sup>12</sup> ohm-cm

### Availability

See table

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Melt Wall Thickness, Nom.	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm
<b>FIT-321-1/8</b>	0.125	3.18	0.024	0.61	0.037	0.94	0.020	0.51
<b>FIT-321-1/4</b>	0.252	6.40	0.073	1.85	0.047	1.19	0.020	0.51
<b>ST-303-3/8</b>	0.374	9.50	0.118	3.00	0.051	1.30	0.025	0.64
<b>FIT-321-1/2</b>	0.500	12.70	0.157	3.99	0.071	1.80	0.030	0.76
<b>ST-303-3/4</b>	0.748	19.00	0.236	5.99	0.071	1.80	0.035	0.89
<b>FIT-321-1</b>	0.945	24.00	0.315	8.00	0.098	2.49	0.040	1.02
<b>FIT-321-1-1/2</b>	1.575	40.01	0.512	13.00	0.098	2.49	0.040	1.02

### Availability

Part No.	Qty, Cut Pieces at Length	
	4 ft (1.2 m)	6" (152 mm)
<b>FIT-321-1/8</b>	25	28
<b>FIT-321-1/4</b>	25	20
<b>FIT-321-1/2</b>	5	14
<b>FIT-321-1</b>	5	8
<b>FIT-321-1-1/2</b>	5	5

### Packaged Assortments

Assorted sizes of 6" (15 cm) lengths

**FIT-321-MS-1** Colors: Black

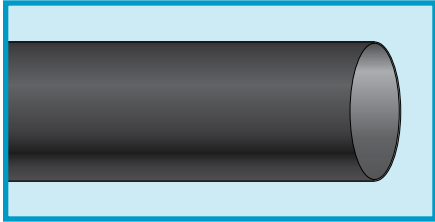
	Size		Quantity
	Inch	mm	
<b>FIT-321-1/8</b>	0.125	3.18	5
<b>FIT-321-1/4</b>	0.252	6.40	5
<b>FIT-321-1/2</b>	0.500	12.70	5
<b>FIT-321-1</b>	0.945	24.00	5



# Heat-Shrink Tubing

FIT®-321V Heat-Shrink Tubing

3:1 Shrink Ratio, Flexible XLPO, Thin Wall



**AMS-DTL-23053/5 Class 1 and 3 (except dimensions)**  
**UL 224 VW-1**  
**CSA 198**

- Low shrink temperature
- Fast recovery time
- Reduced wall thickness

### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL, CSA)

### Shrink Temperature

- 90°C min.
- 135°C full recovery

### Material

- Flexible cross-linked thin-wall polyolefin

### Colors

- Black, white

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: +5%/-15%
- Specific gravity: 1.35

- Flame retardant
- Shelf life: 25 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

### Availability

See table

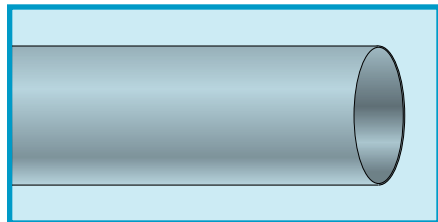
Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	Ft	m
<b>FIT-321V-3/32</b>	0.060	1.52	0.020	0.51	0.020	0.51	500	152
<b>FIT-321V-1/8</b>	0.120	3.05	0.040	1.02	0.024	0.61	500	152
<b>FIT-321V-1/4</b>	0.240	6.10	0.080	2.03	0.028	0.71	250	76.2
<b>FIT-321V-3/8</b>	0.360	9.14	0.120	3.05	0.031	0.79	200	60.9
<b>FIT-321V-1/2</b>	0.472	11.99	0.160	4.06	0.033	0.84	150	45.7
<b>FIT-321V-3/4</b>	0.720	18.29	0.240	6.10	0.039	0.99	250	76.2
<b>FIT-321V-1IN</b>	0.945	24.00	0.315	8.00	0.048	1.22	250	76.2



# Heat-Shrink Tubing

FIT®-350 Heat-Shrink Tubing  
2:1 Shrink Ratio, PVDF



**AMS-DTL-23053/8**  
**UL 224 VW-1**

- Chemical resistant
- Heat resistant
- 3x the tensile strength of standard XLPO

### Operating Temperature

- -55°C to +135°C
- -55°C to +150°C (UL)

### Shrink Temperature

- 170°C min.
- 175°C full recovery

### Material

- Cross-linked polyvinylidene fluoride

### Color

- Clear

### Physical Properties

- Tensile strength: 5000 psi (34.47 N/mm<sup>2</sup>)
- Elongation: 150% min
- Longitudinal change: ±10%
- Specific gravity: 1.80

- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max
- Fluid resistance: 5000 psi (34.47 N/mm<sup>2</sup>)
- Lead free

### Electrical Properties

- 600 V (UL)
- Dielectric strength: 800 V/mil (315 kV/cm)
- Volume resistivity: 10<sup>13</sup> ohm-cm

### Availability

See table

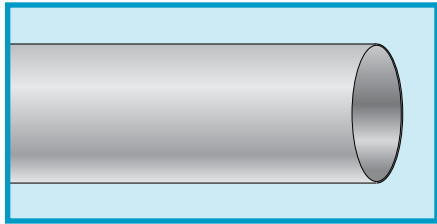
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	4 ft (1.2 m)	6" (152 mm)
<b>FIT-350-3/64</b>	0.046	1.17	0.023	0.58	0.010	0.25	25	32
<b>FIT-350-1/16</b>	0.063	1.60	0.031	0.79	0.010	0.25	25	28
<b>FIT-350-3/32</b>	0.093	2.36	0.046	1.17	0.010	0.25	25	24
<b>FIT-350-1/8</b>	0.125	3.18	0.062	1.57	0.010	0.25	25	20
<b>FIT-350-3/16</b>	0.187	4.75	0.093	2.36	0.010	0.25	25	16
<b>FIT-350-1/4</b>	0.250	6.35	0.125	3.18	0.012	0.30	25	12
<b>FIT-350-3/8</b>	0.375	9.53	0.187	4.75	0.012	0.30	25	8
<b>FIT-350-1/2</b>	0.500	12.70	0.250	6.35	0.012	0.30	5	4
<b>FIT-350-3/4</b>	0.750	19.05	0.375	9.53	0.017	0.43	5	2
<b>FIT-350-1IN</b>	1.000	25.40	0.500	12.70	0.019	0.48	5	1



# Heat-Shrink Tubing

## FIT®-400 Heat-Shrink Tubing

### 1.2:1 Shrink Ratio, FEP



#### AMS-DTL-23053/11 Class 1

- Chemical resistant
- Wide temperature range
- Excellent dielectric properties
- Thinnest wall thickness available
- Lower recovery temperature than PTFE

#### Operating Temperature

- -75°C to +200°C

#### Shrink Temperature

- 175°C full recovery

#### Material

- FEP

#### Color

- Natural

#### Physical Properties

- Tensile strength: 2000 psi (13.79 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±15%
- Specific gravity: 2.17

- Flame rating: UL 94V-0
- Shelf life: 4 years at 18°C to 35°C

#### Chemical Properties

- Corrosive effect: none
- Fluid resistance: pass
- Fungus resistance: no growth
- Water absorption: 0.01% max
- Lead free

#### Electrical Properties

- Dielectric strength: 2000 V/mil (787 kV/cm)
- Volume resistivity: 10<sup>17</sup> ohm-cm

#### Availability

See table

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability Qty, Cut Pieces at Length	
	Inch	Mm	Inch	mm	Inch	mm	4 ft (1.2 m)	2 ft (0.6 m)
<b>FIT-400-24</b>	0.031	0.79	0.027	0.69	0.008	0.20	25	—
<b>FIT-400-22</b>	0.036	0.91	0.032	0.81	0.008	0.20	25	—
<b>FIT-400-20</b>	0.045	1.14	0.039	0.99	0.008	0.20	25	—
<b>FIT-400-18</b>	0.060	1.52	0.049	1.24	0.008	0.20	25	—
<b>FIT-400-16</b>	0.075	1.91	0.061	1.55	0.009	0.23	25	—
<b>FIT-400-14</b>	0.092	2.34	0.072	1.83	0.009	0.23	25	—
<b>FIT-400-12</b>	0.115	2.92	0.089	2.26	0.009	0.23	25	—
<b>FIT-400-10</b>	0.141	3.58	0.114	2.90	0.010	0.25	25	—
<b>FIT-400-9</b>	0.158	4.01	0.124	3.15	0.010	0.25	25	—
<b>FIT-400-8</b>	0.180	4.57	0.143	3.63	0.010	0.25	25	—
<b>FIT-400-7</b>	0.197	5.00	0.158	4.01	0.011	0.28	25	—
<b>FIT-400-6</b>	0.225	5.72	0.180	4.57	0.011	0.28	25	—
<b>FIT-400-5</b>	0.248	6.30	0.198	5.03	0.011	0.28	—	50
<b>FIT-400-4</b>	0.290	7.37	0.226	5.74	0.011	0.28	—	50
<b>FIT-400-3</b>	0.310	7.87	0.249	6.32	0.011	0.28	—	50
<b>FIT-400-2</b>	0.365	9.27	0.280	7.11	0.012	0.30	—	50
<b>FIT-400-1</b>	0.400	10.16	0.311	7.90	0.012	0.30	—	50
<b>FIT-400-0</b>	0.440	11.18	0.349	8.86	0.012	0.30	—	50

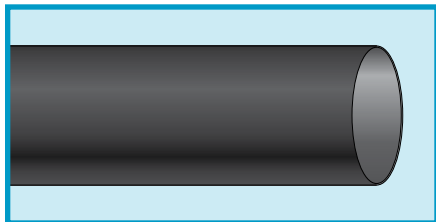




# Heat-Shrink Tubing

FIT®-421 Heat-Shrink Tubing

4:1 Shrink Ratio, XLPO



**AMS-DTL-23053/5 Class 1  
UL 224 VW-1**

- High-shrink ratio
- Large supplied diameters
- Conforms to irregular shapes
- Low water absorption
- UV resistant

### Operating Temperature

- -55°C to +135°C
- -55°C to +125°C (UL)

### Shrink Temperature

- 90°C min.
- 121°C full recovery

### Material

- Cross-linked polyolefin

### Color

- Black

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: +5%/-15%
- Specific gravity: 1.35

- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- UV resistant
- Lead free

### Electrical Properties

- 600 V (UL)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

### Availability

See table

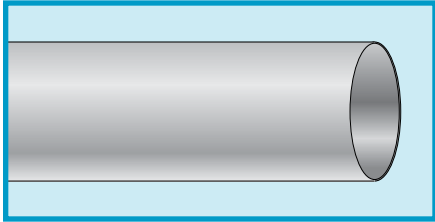
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability Qty, Cut Pieces at Length	
	Inch	mm	Inch	mm	Inch	mm	4 ft (1.2 m)	15 ft (4.5 m)
<b>FIT-421-1IN</b>	1.000	25.40	0.260	6.60	0.045	1.14	5	—
<b>FIT-421-1-1/2</b>	1.500	38.10	0.375	9.53	0.045	1.14	5	—
<b>FIT-421-2IN</b>	2.000	50.80	0.550	13.97	0.045	1.14	5	—
<b>FIT-421-3IN</b>	3.000	76.20	0.810	20.57	0.045	1.14	2	—
<b>FIT-421-4IN</b>	4.000	101.60	1.050	26.67	0.045	1.14	2	—



# Heat-Shrink Tubing

## FIT®-500 Heat Shrink Tubing

### 1.5:1 Shrink Ratio, PTFE



#### AMS-DTL-23053/12 Class 3

- Excellent chemical resistance
- Widest temperature range
- High tensile strength
- Excellent dielectric properties
- Extremely thin wall thickness
- Low friction coefficient

#### Operating Temperature

- -75°C to +260°C

#### Shrink Temperature

- 327°C full recovery

#### Material

- PTFE

#### Color

- Natural

#### Physical Properties

- Tensile strength: 2500 psi (17.21 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±20%
- Specific gravity: 2.20
- Flame rating: UL 94V-0
- Shelf life: 4 years at 18°C to 35°C

#### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.01% max
- Fluid resistance: pass
- Lead free

#### Electrical Properties

- Dielectric strength: 800 V/mil (315 kV/cm)
- Volume resistivity: 10<sup>18</sup> ohm-cm

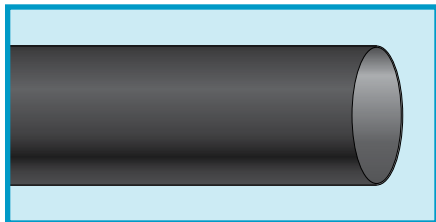
#### Availability

See table

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability, Cut Pieces at Length 2 ft (0.6 m)
	Inch	mm	Inch	mm	Inch	mm	
<b>FIT-500-30</b>	0.034	0.86	0.015	0.38	0.009	0.23	50
<b>FIT-500-28</b>	0.038	0.97	0.018	0.46	0.009	0.23	50
<b>FIT-500-26</b>	0.046	1.17	0.022	0.56	0.010	0.25	50
<b>FIT-500-24</b>	0.050	1.27	0.027	0.69	0.010	0.25	50
<b>FIT-500-22</b>	0.055	1.40	0.032	0.81	0.012	0.30	50
<b>FIT-500-20</b>	0.060	1.52	0.039	0.99	0.012	0.30	50
<b>FIT-500-18</b>	0.076	1.93	0.049	1.24	0.012	0.30	50
<b>FIT-500-16</b>	0.093	2.36	0.061	1.55	0.012	0.30	50
<b>FIT-500-14</b>	0.120	3.05	0.072	1.83	0.012	0.30	50
<b>FIT-500-12</b>	0.150	3.81	0.089	2.26	0.012	0.30	25
<b>FIT-500-10</b>	0.191	4.85	0.112	2.84	0.012	0.30	25
<b>FIT-500-8</b>	0.240	6.10	0.141	3.58	0.015	0.38	25
<b>FIT-500-6</b>	0.302	7.67	0.178	4.52	0.015	0.38	10
<b>FIT-500-4</b>	0.370	9.40	0.224	5.69	0.015	0.38	10
<b>FIT-500-2</b>	0.430	10.92	0.278	7.06	0.015	0.38	10
<b>FIT-500-0</b>	0.470	11.94	0.347	8.81	0.015	0.38	10

# Heat-Shrink Tubing

FIT®-600 Heat Shrink Tubing  
2:1 Shrink Ratio, Chlorinated PO



## AMS-DTL-23053/1 Class 1 and 2

- More flexible than standard XLPO
- 2x the tensile strength of silicone rubber
- Large tubing diameters
- Oil resistant
- Abrasion resistant

### Operating Temperature

- -75°C to +121°C

### Shrink Temperature

- 130°C min.
- 130°C full recovery

### Material

- Chlorinated polyolefin

### Color

- Black

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 250% min
- Longitudinal change: +1%/-10%
- Specific gravity: 1.30
- Flame retardant
- Shelf life: 1 year at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 1.0% max
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- UV resistant
- Lead free

### Electrical Properties

- Dielectric strength: 300 V/mil (118 kV/cm)
- Volume resistivity: 10<sup>11</sup> ohm-cm

### Availability

See table

Spools may contain multiple lengths

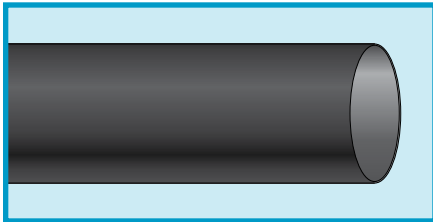
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	Ft	m
FIT-600-1/4	0.250	6.35	0.143	3.63	0.035	0.89	25, 150	7.6, 46
FIT-600-3/8	0.375	9.53	0.211	5.36	0.040	1.02	25, 150	7.6, 46
FIT-600-1/2	0.500	12.70	0.286	7.26	0.048	1.22	25, 150	7.6, 46
FIT-600-5/8	0.625	15.88	0.357	9.07	0.052	1.32	25, 150	7.6, 46
FIT-600-3/4	0.750	19.05	0.428	10.87	0.057	1.45	25, 100	7.6, 30.5
FIT-600-7/8	0.875	22.23	0.500	12.70	0.065	1.65	25, 100	7.6, 30.5
FIT-600-1IN	1.000	25.40	0.570	14.48	0.070	1.78	25, 100	7.6, 30.5
FIT-600-1-1/4	1.250	31.75	0.714	18.14	0.087	2.21	25, 100	7.6, 30.5
FIT-600-1-1/2	1.500	38.10	0.857	21.77	0.095	2.41	25, 100	7.6, 30.5
FIT-600-1-3/4	1.750	44.45	1.000	25.40	0.107	2.72	25, 75	7.6, 22.8
FIT-600-2IN	2.000	50.80	1.140	28.96	0.110	2.79	25, 75	7.6, 22.8
FIT-600-3IN	3.000	76.20	1.710	43.43	0.125	3.18	25, 50	7.6, 15.2



# Heat-Shrink Tubing

FIT®-621 Heat Shrink Tubing

5.6:1 Shrink Ratio, Dual-Wall Flexible PO, Adhesive-Lined Inner Thick Wall



- High shrink ratios
- Heavy-duty adhesive lining
- Low water absorption
- Oil resistant
- Chemical resistant
- Abrasion resistant

### Operating Temperature

- -55°C to +90°C

### Shrink Temperature

- 121°C full recovery

### Material

- Polyolefin

### Color

Black

### Physical Properties

- Tensile strength: 1200 psi (8.27 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: -10%
- Specific gravity: 1.40
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max
- Fluid resistance: 750 psi (5.17 N/mm<sup>2</sup>)
- Halogen free
- Lead free

### Electrical Properties

- Dielectric strength: 200 V/mil (79 kV/cm<sup>2</sup>)
- Volume resistivity: 10<sup>13</sup> ohm-cm

### Availability

See table

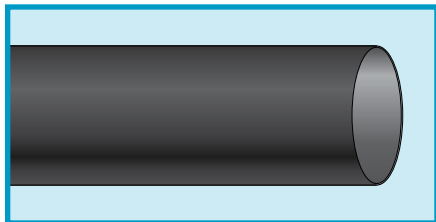
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Adhesive Wall Thickness, Min.		Availability, Qty, Cut Pieces at Length 6" (152 mm)
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
<b>FIT-621-5/8</b>	0.600	15.24	0.150	3.81	0.060	1.52	0.050	1.27	3, 10
<b>FIT-621-1-1/4</b>	1.250	31.75	0.220	5.59	0.060	1.52	0.050	1.27	3, 10
<b>FIT-621-2</b>	2.000	50.80	0.374	9.50	0.106	2.69	0.050	1.27	3, 10, 24
<b>FIT-621-2-1/2</b>	2.500	63.50	0.500	12.70	0.120	3.05	0.050	1.27	3, 10
<b>FIT-621-3</b>	3.000	76.20	0.748	19.00	0.140	3.56	0.050	1.27	3, 10
<b>FIT-621-4</b>	4.000	101.60	0.898	22.81	0.155	3.94	0.050	1.27	3, 10



# Heat-Shrink Tubing

FIT®-650 Heat Shrink Tubing

2:1 Shrink Ratio, Flexible Fluoroelastomer



## AMS-DTL-23053/13

- Excellent chemical resistance
- Wide temperature range
- Flexible
- Oil resistant
- Fuel resistant

### Operating Temperature

- -40°C to +200°C

### Shrink Temperature

- 130°C min.
- 175°C full recovery

### Material

- Flexible fluoroelastomer

### Colors

- Black

### Physical Properties

- Tensile strength: 1200 psi (8.27 N/mm<sup>2</sup>)
- Elongation: 250% min
- Longitudinal change: ±20%
- Flammability: self-extinguishing
- Shelf life: 2 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.50% max
- Fluid resistance: 1200 psi (8.27 N/mm<sup>2</sup>)
- Lead free

### Electrical Properties

- Dielectric strength: 200 V/mil (79 kV/cm)
- Volume resistivity: 10<sup>9</sup> ohm-cm

### Availability

100 ft (30.5 m)  
Spools may contain multiple lengths

Part No	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.	
	Inch	mm	Inch	mm	Inch	mm
<b>FIT-650-1/8</b>	0.125	3.18	0.062	1.57	0.031	0.79
<b>FIT-650-3/16</b>	0.187	4.75	0.093	2.36	0.035	0.89
<b>FIT-650-1/4</b>	0.250	6.35	0.125	3.18	0.035	0.89
<b>FIT-650-3/8</b>	0.375	9.53	0.187	4.75	0.035	0.89
<b>FIT-650-1/2</b>	0.500	12.70	0.250	6.35	0.035	0.89
<b>FIT-650-3/4</b>	0.750	19.05	0.375	9.53	0.042	1.07
<b>FIT-650-1</b>	1.000	25.40	0.500	12.70	0.049	1.24
<b>ST-650-1-1/2*</b>	1.500	38.10	0.750	19.50	0.055	1.40

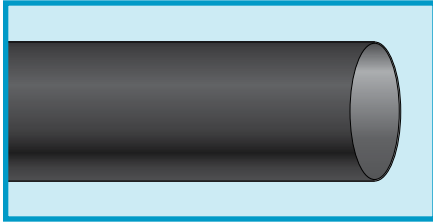
\*Available in 50 ft (76 m) spools only.



# Heat-Shrink Tubing

FIT®-700 Heat Shrink Tubing

3:1 Shrink Ratio, Heavy-Wall XLPO, Thermoplastic Adhesive Lined



**ANSI C119:1**  
**UL 486**  
**CSA 198**

- Thermoplastic adhesive bonds to most materials
- Rated for 1 kV, 90°C continuous use
- Superior strength

### Operating Temperature

- -55°C to +110°C

### Shrink Temperature

- 120°C min.
- 120°C full recovery

### Material

- Heavy-wall cross-linked polyolefin
- Thermoplastic adhesive

### Color

- Black

### Physical Properties

- Tensile strength: 2100 psi (14.48 N/mm<sup>2</sup>)
- Elongation: 600% min
- Longitudinal change: +1%/-10%

- Specific gravity: 1.10
- Flame retardant
- Shelf life: 25 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.10% max
- Fluid resistance: excellent
- UV resistant
- Lead free

### Electrical Properties

- Dielectric strength: 500 V/mil (196.9 kV/cm)
- Volume resistivity: 10<sup>17</sup> ohm-cm

### Availability

Cut pieces (see table)

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Adhesive Wall Thickness, Min.		Availability, Qty, Cut Pieces at Length 12" (304 mm)
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
<b>FIT-700-21</b>	0.750	19.05	0.240	6.10	0.120	3.05	0.050	1.27	6
<b>FIT-700-22</b>	1.100	27.94	0.350	8.89	0.120	3.05	0.050	1.27	6
<b>FIT-700-23</b>	1.500	38.10	0.470	11.94	0.140	3.56	0.050	1.27	6
<b>FIT-700-24</b>	2.000	50.80	0.630	16.00	0.140	3.56	0.050	1.27	6
<b>FIT-700-25*</b>	3.000	76.20	1.250	31.75	0.160	4.06	0.050	1.27	6
<b>FIT-700-26*</b>	4.500	114.30	1.750	44.45	0.160	4.06	0.050	1.27	6

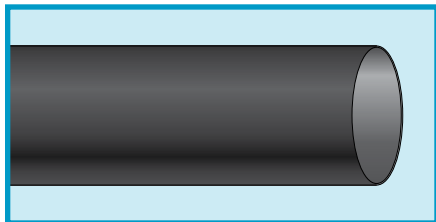
\*Not UL or CSA listed



# Heat-Shrink Tubing

FIT®-750 Heat Shrink Tubing

2:1 Shrink Ratio, XLPO, Adhesive Lined



**AMS-DTL-23053/4 Class 2**  
**UL 224 VW-1**  
**CSA 198**

- General-purpose adhesive-lined tubing
- Total encapsulation
- Bonding to substrates

### Operating Temperature

- -55°C to +110°C
- -55°C to +125°C (UL, CSA)

### Shrink Temperature

- 110°C min.
- 110°C full recovery

### Material

- Adhesive-lined cross-linked polyolefin

### Color

- Black

### Physical Properties

- Tensile strength: 1500 psi (10.34 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: +1%/-5%

- All tubing flame tested
- Self-extinguishing within 1 minute
- Shelf life: 3 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5% max
- Fluid resistance: 1000 psi (6.89 N/mm<sup>2</sup>)
- UV resistance
- Lead free

### Electrical Properties

- 600 V (UL, CSA)
- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>12</sup> ohm-cm

### Availability

See table

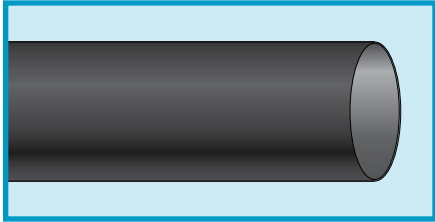
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Adhesive Wall Thickness, Min.		Availability, Qty, Cut Pieces at Length
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
<b>ST-302-1/8</b>	0.125	3.18	0.063	1.60	0.027	0.69	0.002	0.05	25
<b>ST-302-3/16</b>	0.187	4.75	0.093	2.36	0.027	0.69	0.002	0.05	25
<b>FIT-750-1/4</b>	0.250	6.35	0.125	3.18	0.030	0.76	0.004	0.10	25
<b>FIT-750-3/8</b>	0.375	9.53	0.187	4.75	0.031	0.79	0.004	0.10	25
<b>FIT-750-1/2</b>	0.500	12.70	0.250	6.35	0.032	0.81	0.005	0.13	5
<b>FIT-750-3/4</b>	0.750	19.05	0.375	9.53	0.037	0.94	0.005	0.13	5
<b>FIT-750-1IN</b>	1.000	25.40	0.500	12.70	0.039	0.99	0.007	0.18	5
<b>FIT-750-1-1/2</b>	1.500	38.10	0.750	19.05	0.046	1.17	0.007	0.18	5





# Heat-Shrink Tubing

## FIT®-FABRIC Woven Fabric Heat-Shrink Tubing 2:1 Shrink Ratio



**UL 1441 (125°C)  
MVSS 302**

- Excellent abrasion resistance
- Outstanding flexibility and durability
- Easy installation: cuts with scissors

### Operating Temperature

- -40°C to +125°C

### Shrink Temperature

- 80°C min.
- 135°C full recovery

### Material

- Polyethylene-polyester fabric

### Color

- Black

### Physical Properties

- Flame retardant
- Shelf life: 25 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Lead free
- Halogen free
- UV resistant

### Availability

See table

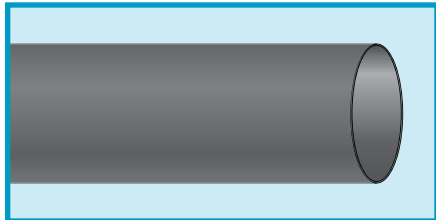
Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	Ft	m
<b>FIT-FAB-1</b>	0.472	11.99	0.236	5.99	0.040	1.02	50, 200	15.2, 60.9
<b>FIT-FAB-2</b>	0.787	19.99	0.394	10.01	0.040	1.02	50, 200	15.2, 60.9
<b>FIT-FAB-3</b>	1.181	30.00	0.591	15.01	0.040	1.02	50, 200	15.2, 60.9
<b>FIT-FAB-4</b>	1.575	40.01	0.787	19.99	0.040	1.02	50, 200	15.2, 60.9
<b>FIT-FAB-5</b>	1.969	50.01	0.984	24.99	0.040	1.02	25, 100	7.6, 30.5
<b>FIT-FAB-6</b>	2.362	59.99	1.181	30.00	0.040	1.02	25, 100	7.6, 30.5
<b>FIT-FAB-7</b>	2.756	70.00	1.378	35.00	0.040	1.02	25, 100	7.6, 30.5



# Heat-Shrink Tubing

FIT®-FLEX Highly Flexible Heat-Shrink Tubing  
1.7:1 Shrink Ratio, Cross-linked Silicone Rubber



## UL 224 VW-1

- Highly flexible over wide temperature range
- Scrape abrasion resistant
- Pliable

### Operating Temperature

- -50°C to +200°C

### Shrink Temperature

- 80°C min.
- 135°C full recovery

### Material

- Cross-linked silicone rubber

### Color

- Slate

### Physical Properties

- Tensile strength: 870 psi (5.99 N/mm<sup>2</sup>)
- Elongation: 350% min
- Longitudinal change: -15%
- Specific gravity: 1.20
- Flammability: self-extinguishing
- Shelf life: 25 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption 1.0% max
- Lead free

### Electrical Properties

- 600 V
- Dielectric strength: 200 V/mil (79 kV/cm)
- Volume resistivity: 10<sup>12</sup> ohm-cm

### Availability

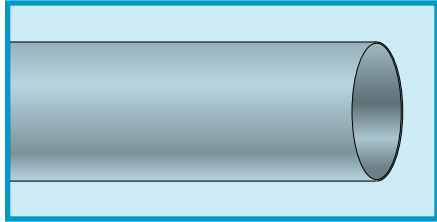
25 ft (7.6 m)  
100 ft (30.5 m)  
Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.	
	Inch	mm	Inch	mm	Inch	mm
<b>FIT-FLEX-2</b>	0.165	4.19	0.071	1.80	0.055	1.40
<b>FIT-FLEX-3</b>	0.263	6.68	0.114	2.90	0.055	1.40
<b>FIT-FLEX-5</b>	0.394	10.01	0.173	4.39	0.055	1.40
<b>FIT-FLEX-6</b>	0.512	13.00	0.244	6.20	0.055	1.40
<b>FIT-FLEX-9</b>	0.757	19.23	0.354	8.99	0.059	1.50
<b>FIT-FLEX-12</b>	0.984	24.99	0.492	12.50	0.079	2.01
<b>FIT-FLEX-20</b>	1.378	35.00	0.748	19.00	0.079	2.01



# Heat-Shrink Tubing

FIT®-CLEAR Heat-Shrink Tubing  
2:1 Shrink Ratio, Cross-Linked PVDF



**AMS-DTL-23053/18 Class 1  
UL 224 VW-1**

- Excellent heat and chemical resistance
- Mechanical abrasion and cut-through resistance

### Operating Temperature

- -55°C to +175°C
- -55°C to +150°C (UL)

### Shrink Temperature

- 150°C full recovery

### Material

- Cross-linked polyvinylidene fluoride

### Color

- Clear

### Physical Properties

- Tensile strength: 3500 psi (24.13 N/mm<sup>2</sup>)
- Elongation: 200% min
- Longitudinal change: ±10%
- Specific gravity: 2.0
- Flame retardant
- Shelf life: 5 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption 0.5% max
- Fluid resistance: 2000 psi (13.79 N/mm<sup>2</sup>)
- Lead free

### Electrical Properties

- 600 V (UL)
- Dielectric strength: 400 V/mil (158 kV/cm)
- Volume resistivity: 10<sup>11</sup> ohm-cm

### Availability

See table

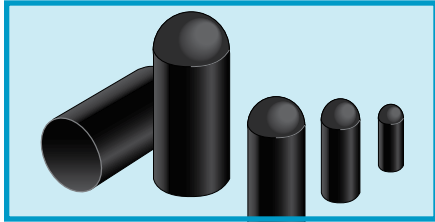
Spools may contain multiple lengths

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Availability	
	Inch	mm	Inch	mm	Inch	mm	Ft	m
<b>FIT-CLEAR-3/64</b>	0.046	1.17	0.023	0.58	0.010	0.25	100	30.5
<b>FIT-CLEAR-1/16</b>	0.063	1.60	0.031	0.79	0.010	0.25	100	30.5
<b>FIT-CLEAR-3/32</b>	0.093	2.36	0.046	1.17	0.010	0.25	100	30.5
<b>FIT-CLEAR-1/8</b>	0.125	3.18	0.062	1.57	0.010	0.25	100	30.5
<b>FIT-CLEAR-3/16</b>	0.187	4.75	0.093	2.36	0.010	0.25	100	30.5
<b>FIT-CLEAR-1/4</b>	0.250	6.35	0.125	3.18	0.012	0.30	100	30.5
<b>FIT-CLEAR-3/8</b>	0.375	9.53	0.187	4.75	0.012	0.30	100	30.5
<b>FIT-CLEAR-1/2</b>	0.500	12.70	0.250	6.35	0.012	0.30	50	15.2
<b>FIT-CLEAR-3/4</b>	0.750	19.05	0.375	9.53	0.017	0.43	50	15.2
<b>FIT-CLEAR-1IN</b>	1.000	25.40	0.500	12.70	0.019	0.48	50	15.2
<b>FIT-CLEAR-1-1/2</b>	1.500	38.10	0.750	19.05	0.020	0.51	50	15.2
<b>FIT-CLEAR-2IN</b>	2.000	50.80	1.000	25.40	0.020	0.51	50	15.2



# Heat-Shrink Tubing

CAP Molded Heat-Shrink End Caps  
2:1 Shrink Ratio, Semirigid Polyolefin



- Abrasion resistant
- Moisture resistant

### Operating Temperature

- -55°C to +135°C

### Shrink Temperature

- 135°C full recovery

### Material

- Semirigid polyolefin

### Color

- Black

### Physical Properties

- Tensile strength: 2500 psi (1.76 N/mm<sup>2</sup>)
- Elongation: 300% min
- Recovered parts may have angularity of 30° to 45°
- Specific gravity: 1.25
- Flammability: self-extinguishing
- Shelf life: 25 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption 0.1% max
- UV resistant
- Lead free

### Electrical Properties

- Dielectric strength: 700 V/mil (276 kV/cm)
- Volume resistivity: 10<sup>16</sup> ohm-cm

### Availability

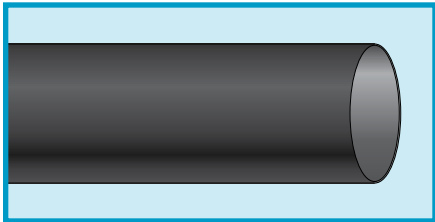
25-piece packages

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Length, Nom.	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm
<b>CAP-21</b>	0.200	5.08	0.080	2.03	0.040	1.02	0.900	22.86
<b>CAP-22</b>	0.290	7.37	0.130	3.30	0.050	1.27	1.000	25.40
<b>CAP-23</b>	0.400	10.16	0.180	4.57	0.060	1.52	1.200	30.48
<b>CAP-24</b>	0.600	15.24	0.250	6.35	0.070	1.78	1.600	40.64
<b>CAP-25</b>	0.810	20.57	0.370	9.40	0.080	2.03	2.400	60.96
<b>CAP-26</b>	1.000	25.40	0.450	11.43	0.090	2.29	2.700	68.58
<b>CAP-27</b>	1.550	39.37	0.710	18.03	0.100	2.54	3.600	91.44

# Heat-Shrink Tubing

SPC Heat Shrink Tubing

3:1 Shrink Ratio, XLPO, Heavy-Wall Thermoplastic Bonding Layer



## AMS DTL-23053/15 Class 1

- Adhesive lined for sealing
- Thick wall for extra abrasion resistance
- Rated to 1 kV

### Operating Temperature

- -55°C to +110°C

### Shrink Temperature

- 120°C min.

### Material

- Cross-linked polyolefin

### Color

- Black

### Physical Properties

- Tensile strength: 2400 psi (138 N/mm<sup>2</sup>)
- Elongation: 475% min
- Longitudinal change: +1%/-10%
- Specific gravity: 1.28
- Flame retardant, self-extinguishing
- Shelf life: 25 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.02%
- Fluid resistance: pass
- UV resistant
- Lead free

### Electrical Properties

- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>15</sup> ohm-cm

### Availability

Sold in individual pieces  
 6 in. (0.1 m)  
 12 in. (0.3 m)  
 48 in. (1.2 m) bulk

Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Adhesive Wall Thickness, Min.	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm
<b>SPC-400*</b>	0.400	10.16	0.150	3.81	0.060	1.52	0.050	1.27
<b>SPC-800*</b>	0.800	20.32	0.200	5.08	0.060	1.52	0.050	1.27
<b>SPC-110*</b>	1.100	27.94	0.375	9.53	0.105	2.67	0.050	1.27
<b>SPC-150</b>	1.500	38.10	0.500	12.70	0.120	3.05	0.050	1.27
<b>SPC-200</b>	2.000	50.80	0.750	19.05	0.120	3.05	0.050	1.27
<b>SPC-300</b>	3.000	76.20	1.000	25.40	0.120	3.05	0.050	1.27

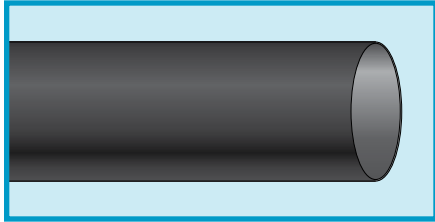
\*Availability includes 6 in. (0.1 m) lengths.



# Heat-Shrink Tubing

## SPCM Heat Shrink Tubing

### 3:1 Shrink Ratio, XLPO, Medium Wall, Thermoplastic Bonding Layer



#### Operating Temperature

- -55°C to +200°C

#### Shrink Temperature

- 120°C min.

#### Material

- Cross-linked polyolefin

#### Color

- Black

#### Physical Properties

- Tensile strength: 2400 psi (1.38 N/mm<sup>2</sup>)
- Elongation: 475% min
- Longitudinal change: +1%/-10%
- Specific gravity: 1.25
- Self-extinguishing
- Shelf life: 25 years at 18°C to 35°C

#### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.02%
- Fluid resistance: pass
- UV resistant
- Lead free

#### Electrical Properties

- Dielectric strength: 500 V/mil (197 kV/cm)
- Volume resistivity: 10<sup>15</sup> ohm-cm

#### Availability

- Sold in individual pieces
- 6 in. (0.1 m)
  - 12 in. (0.3 m)
  - 48 in. (1.2 m)

#### AMS DTL-23053/15 Class 2

- Adhesive lined for sealing
- Medium wall for abrasion resistance
- Rated to 1 kV

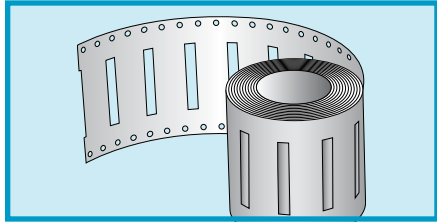
Part No.	Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.		Recovered Adhesive Wall Thickness, Min.	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm
SPCM400*	0.400	10.16	0.150	3.81	0.050	1.27	0.040	1.02
SPCM800*	0.800	20.32	0.220	5.59	0.060	1.52	0.040	1.02
SPCM110*	1.100	27.94	0.375	9.53	0.065	1.65	0.040	1.02
SPCM130	1.300	33.02	0.375	9.53	0.065	1.65	0.040	1.02
SPCM150	1.500	38.10	0.500	12.70	0.080	2.03	0.040	1.02
SPCM170	1.700	43.18	0.500	12.70	0.100	2.54	0.040	1.02
SPCM200	2.000	50.80	0.750	19.05	0.100	2.54	0.040	1.02
SPCM300	3.000	76.20	1.000	25.40	0.100	2.54	0.040	1.02

\*Availability includes 6 in. (0.1 m) lengths.

# Heat-Shrink Tubing

## FIT®-PRINT Heat-Shrinkable Identification System

3:1 Shrink Ratio, XLPO



**UL 224**  
**CSA 198**  
**MIL-STD-202F Method 215J**

- Permanent, smear-resistant marking
- Identification for cable or harness assemblies

### Operating Temperature

- -30°C to +105°C

### Shrink Temperature

- 90°C min.
- 125°C full recovery

### Material

- Cross-linked polyolefin

### Colors

- White, yellow

### Physical Properties

- Tensile strength: 1160 psi (8.0 N/mm<sup>2</sup>)
- Elongation: 150% min

- Longitudinal change: 20%
- Flame retardant
- Shelf life: 3 years at 18°C to 35°C

### Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.5%

### Electrical Properties

- Dielectric strength: 20 V/mil (7.9 kV/cm)
- Volume resistivity: 10<sup>14</sup> ohm-cm

### Availability

250 tubing pieces per package

Part No	Range			Supplied ID, Min.		Recovered ID, Max.		Recovered Wall Thickness, Nom.	
	AWG	Inch	mm	Inch	mm	Inch	mm	Inch	mm
<b>FIT-PRINT-1/8</b>	22 - 16	0.344 - 1.374	8.74 - 34.90	0.125	3.18	0.042	1.07	0.023	0.58
<b>FIT-PRINT-1/4</b>	16 - 8	1.374 - 3.264	34.90 - 82.92	0.250	6.35	0.083	2.11	0.023	0.58
<b>FIT-PRINT-1/2</b>	8 - 2	3.264 - 6.543	82.92 - 166.19	0.500	12.70	0.166	4.22	0.023	0.58
<b>FIT-PRINT-1</b>	2 - 4/0	6.543 - 10.2	166.19 - 259.08	1.000	25.40	0.333	8.46	0.023	0.58

To economically meet the wire identification needs of the electronic interconnect, industrial, computer office automation, marine, and electrical markets, FIT-PRINT sleeves allow smear-resistant, permanent identification. The sleeves, available in white or high-visibility bright yellow, feed directly into dot matrix printers (high carbon content ribbon recommended). A standard ball-point pen may also be used.





# Heat-Shrink Tubing

## FIT®-KIT

### Assorted Heat-Shrink Tubing



- For use in R&D labs, engineering development, and maintenance departments

#### FIT-KIT-1 for General-Purpose Indoor Applications

Tubing supplied in 6" (15.2 cm) lengths unless otherwise noted.

Family	Material	Sizes	Range	Total Quantity
<b>FIT-105</b>	PVC	9	3/64" - 3/4"	18
<b>FIT-221</b>	XLPO	9	3/64" - 3/4"	19
<b>FIT-295</b>	SR-XLPO	8	3/64" - 1/2"	12
<b>FIT-300</b>	XLPO	5	1/8" - 1/2"	10
<b>FIT-350</b>	PVDF	7	3/64" - 3/8"	14
<b>FIT-CRIMP</b>	Nylon	22 - 10 AWG	—	3 pc*
<b>Caps</b>	XLPO	22, 23, 24 AWG	—	6 pc

\*1 each of FIT-CRIMP 1, 2, and 3.

#### FIT-KIT-2 for General-Purpose Indoor and Outdoor Applications

Tubing supplied in 6" (15.2 cm) lengths unless otherwise noted.

Family	Material	No. of Sizes	Range	Total Quantity
<b>FIT-105</b>	PVC	9	3/64" - 3/4"	18
<b>FIT-221</b>	XLPO	9	3/64" - 3/4"	19
<b>FIT-295</b>	SR-XLPO	8	3/64" - 1/2"	12
<b>FIT-300</b>	XLPO	5	1/8" - 1/2"	10
<b>FIT-321</b>	Adhesive-Lined XLPO	2	1/4" - 1/2"	16, 24*
<b>FIT-350</b>	PVDF	7	3/64" - 3/8"	14
<b>FIT-400</b>	FEP	6	24 - 12 AWG	22
<b>FIT-500</b>	PTFE	5	26 - 18 AWG	17
<b>FIT-600</b>	Chlorinated PO	5	1/4" - 1"	8
<b>FIT-700</b>	Thermoplastic Adhesive-Lined XLPO	2	21 - 22	2
<b>FIT-750</b>	Adhesive-Lined XLPO	1	3/8"	10*
<b>FIT-CRIMP</b>	Nylon	22 - 10 AWG	—	3 pc**
<b>Caps</b>	XLPO	22, 23, and 24	—	6 pc

\*1"/25.4 mm length.

\*\*1 each of FIT-CRIMP 1, 2, and 3.

#### FIT-KIT-7 for General-Purpose Indoor and Outdoor Applications

Tubing supplied in 6" (15.2 cm) lengths unless otherwise noted.

Family	Material	No. of Sizes	Range	Total Quantity
<b>FIT-105</b>	PVC	7	1/16" - 1/2"	14
<b>FIT-221</b>	XLPO	7	1/16" - 1/2"	28
<b>FIT-260</b>	XLPO (Ground Lead)	3	1/8" - 1/2"	6
<b>FIT-300</b>	XLPO	4	3/8" - 1/2"	8
<b>FIT-321</b>	Adhesive-Lined XLPO	3	1/8" - 1/2"	6
<b>FIT-350</b>	PVDF	7	1/6" - 1/2"	14
<b>FIT-400</b>	FEP	7	24 - 12 AWG	14
<b>FIT-750</b>	Adhesive-Lined XLPO	5	1/4" - 1"	10
<b>FIT-CRIMP</b>	Nylon	22 - 10 AWG	—	12 pc*

\*4 each of FIT-CRIMP 1, 2, and 3.

# Heat-Shrink Tubing

## FIT®-MGKIT-1

Convenient Kit with FIT Minigun and FIT-221 Variety Pack



### FIT Minigun Characteristics

- UL 499
- To 300°C nozzle temperature
- 6 ft (1.83 m) power cord
- 10.3 oz (0.39 kg) net weight
- Workbench storage loop included
- 120 V
- 350 W
- 3 A
- Color: blue

### FIT-221-R Variety Kit

- UL 224
- CSA 198
- AMS-DTL-23053/5 Class 1
- 60 6" (15.2 cm) pieces in five sizes and various colors
- Cross-linked polyolefin
- 2:1 shrink ratio

### FIT-MGKIT-1 Contents

Part No.	Description	Quantity
<b>FIT MINIGUN</b>	Lightweight, portable heat gun	1
<b>FIT-221-R</b>	FIT-221R Variety Pack	1 kit/60 pieces

### FIT-221-R Kit Contents

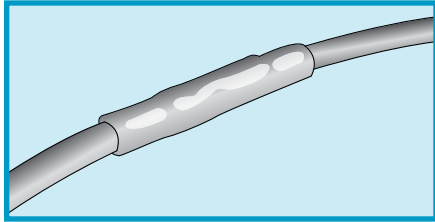
	Tubing Size		Number of 6" (15.2 cm) Pieces					
	Inch	Mm	Black	White	Red	Blue	Yellow	Green
<b>FIT-221-1/8</b>	0.125	3.18	4	3	2	2	2	1
<b>FIT-221-3/16</b>	0.187	4.75	4	3	2	2	2	1
<b>FIT-221-1/4</b>	0.250	6.35	4	3	2	2	2	1
<b>FIT-221-3/8</b>	0.375	9.53	3	2	1	1	1	1
<b>FIT-221-1/2</b>	0.500	12.70	3	2	1	1	1	1



# Heat-Shrink Tubing

## FIT®-CRIMP Heat-Shrinkable Crimp Splices

### 2:1 Shrink Ratio, Nylon



UL ZMVV

#### Operating Temperature

- -55°C to +125°C

#### Materials

- Heat-shrinkable nylon
- Polyamide-based adhesive
- Tin-plated copper base metal

#### Physical Properties

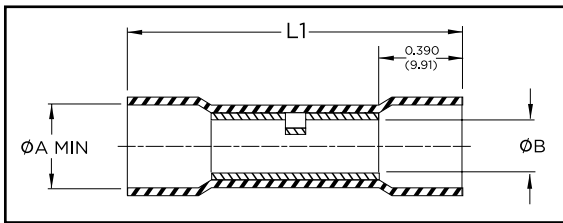
- Shelf life: 25 years at 18°C to 35°C
- Not flame retardant

#### Chemical Properties

- Solvent resistance: isopropyl alcohol, trichloroethylene, gasoline, battery acid, diesel fuel, motor oil, anti-freeze, brake fluid, 5% salt water

#### Availability

- 100-piece packages
- 500-piece packages



Part No.	Wire Range		Color	Length		Supplied ID, Min.			Recovered ID, Max.		
	AWG	mm <sup>2</sup>		L1		A	B	A			
				Inch	mm	Inch	mm	Inch	mm	Inch	mm
<b>FIT-CRIMP 1</b>	22 - 18	0.26 - 0.96	Red	1.50	38.10	0.170	4.32	0.058	1.47	0.055	1.40
<b>FIT-CRIMP 2</b>	16 - 14	1.04 - 2.62	Blue	1.50	38.10	0.197	5.00	0.092	2.34	0.080	2.03
<b>FIT-CRIMP 3</b>	12 - 10	2.62 - 6.64	Yellow	1.70	43.18	0.255	6.48	0.138	3.51	0.110	2.79

Alpha's heat-shrinkable pre-insulated crimp splices completely seal electrical connections from corrosion caused by water, salts, and other contaminants. Unlike conventional splices, these adhesive-lined butt connectors provide a strong reinforced connection. They are lightweight and easy to install, too.

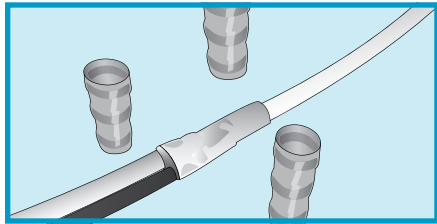
Simply insert the wires. The sleeve's transparent nylon insulation lets you inspect wire location and position your crimping tool fast.

Crimp the splice and then shrink and seal it with a common heat gun or other heat source. Reliable sealing plus quick and easy installation add up to protection you can count on whenever wire splices are required, including automobile and truck wiring, outdoor electrical equipment, marine equipment, telecommunications equipment, recreational equipment, and household appliances.



# Heat-Shrink Tubing

## FIT®-SLV Soldering Sleeves



**ANSI J-STD-004**  
**ANSI J-STD-006**  
**NAS 1745**

### Operating Temperature

- -55°C to +105°C (SLV 12 - 16)
- -55°C to +125°C (SLV 22 - 26)

### Sleeve Color

- Transparent blue

### Materials

- PVDF heat-shrinkable sleeve

### Solder Preform:

- 105°C Series: 51.2% tin, 30.6% lead, 18.2% cadmium (143°C melting temperature)
- 125°C Series: 63% tin, 37% lead (183°C melting temperature)

### Physical Properties:

- Shelf life: 25 years at 18°C to 35°C

### Availability

- 25-piece packages
- 100-piece packages

Part No.		Dimensions					
		D1 min.		D min.		L nom.	
105°C	125°C	Inch	mm	Inch	mm	Inch	mm
<b>FIT-SLV-12</b>	<b>FIT-SLV-22</b>	0.125	3.18	0.110	2.79	0.625	15.88
<b>FIT-SLV-14</b>	<b>FIT-SLV-24</b>	0.200	5.08	0.180	4.57	0.625	15.88
<b>FIT-SLV-16</b>	<b>FIT-SLV-26</b>	0.300	7.62	0.280	7.11	0.750	19.05

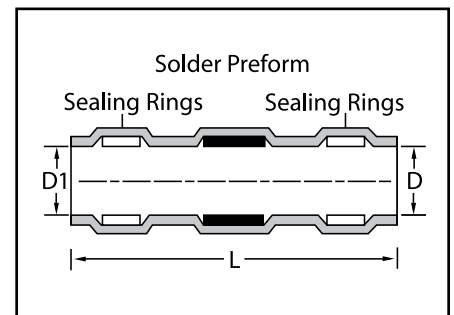
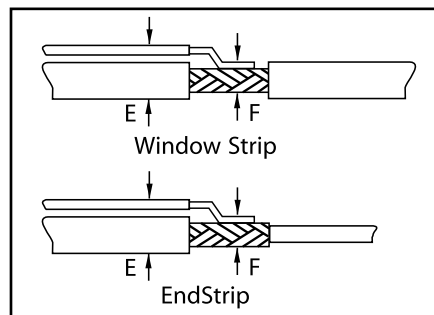
Alpha's FIT-SLV soldering sleeve is a one piece, shield ground termination system featuring a strong, low-cost soldered connection that is completely insulated and encapsulated. It consists of a heat-shrinkable thermoplastic sleeve containing a precisely engineered preform of fluxed solder and thermoplastic

inserts at each end. When placed over a cable shield and heated, the solder melts and flows, connecting the ground lead and shield. The outer sleeve shrinks and the thermoplastic inserts melt, encapsulating the termination. The result is a perfectly soldered, strain-relieved and environmentally protected termination.

A solder preform ensures exact quantity of solder and flux, producing optimum solder connections for maximum strength and lowest voltage drop. Transparent heat-shrinkable insulating sleeve allows inspection of termination, and provides long-life strain relief. Meltable inserts insure complete environmental protection.

### Selection Guide






- 1 Measure maximum diameter (E) and minimum diameter (F) of combined cable and ground lead.
2. Find appropriate Alpha part number and sleeve size in the cable and sleeve dimensions chart.



# Heat-Shrink Tubing

## FIT® Heat Guns



<b>Temperature, Low</b>	60°C (140°F)	316°C (600°F)	—
<b>Temperature, High</b>	566°C (1050°F)	510°C (950°F)	300°C (572°F)
<b>Temperature Selection</b>	Slider switch: Off, Low, Medium, High	Slider switch: Off, Low, High	Rocker switch: Off, On
<b>Power</b>	1400 W	1300 W	350 W
<b>Voltage</b>	120 VAC/60 Hz	120 VAC/60 Hz	120 VAC/60 Hz
<b>Current</b>	11.6 A	10.0 A	3 A
<b>Power Cord Length</b>	6.5 ft (2 m)	6.5 ft (2 m)	6 ft (1.8 m)
<b>Net Weight</b>	2.2 lb (1 kg)	1.6 lb (0.68 kg)	10.3 oz (0.39 kg)
<b>Color</b>	Black/gray	Black/gray	Blue
<b>Nozzle Attachments</b>	Reflector nozzle	—	Workbench loop
<b>Approvals</b>	UL 499  	UL 499  	UL 499 
<b>Part No.</b>	<b>FIT-GUN1</b>	<b>FIT-GUN3</b>	<b>FIT-MG1</b>

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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