

# Pebax® & Polyolefin Heat Shrink Tubing

## 4:1 Shrink Ratio



Consider 4:1 Heat Shrink Tubing when your device walls need to be as thin as possible (<1 mil).

### Pebax 4:1 Heat Shrink Tubing

- Highly flexible
- Multiple durometers
- Thin walls
- Bonds to polymers and metals
- Maximum adhesion
- Remains on device
- High shrink ratio
- Excellent concentricity
- Conformal; tight fitting

### Polyolefin 4:1 Heat Shrink Tubing

- Highly flexible
- Fixed durometer
- Thin walls
- Durable
- Very low shrink temperature
- Good moisture/vapor barrier
- Remains on device
- High shrink ratio
- Excellent concentricity
- Rapid recovery

### APPLICATIONS

- Outer layer for catheter shaft
- Cover for coils & braids
- Jacket for laser-cut hypotube
- Coating for tapered guidewire

### CAPABILITIES

- Custom colors
- Precision cutting with tight tolerances
- Custom expansion of customer-supplied tubing
- Custom lamination of components

### PROPERTIES

	Pebax 4:1 Heat Shrink Tubing	Polyolefin 4:1 Heat Shrink Tubing
Shrink Temperature	~ 340° F/171° C	~ 220° F/105° C
Durometers (Shore D)	72, 74	63
Elongation at Break	300% (for 72D)	
Tensile Strength at Break	7,500 psi	
Dielectric Strength	>500 volts/mil	1000 volts/mil
Tubing Certification	USP Class VI	USP Class VI
Sterilization	Stable with gamma, e-beam, or EtO sterilization Test for autoclave or repeat use	Stable with gamma, e-beam, or EtO sterilization Test for autoclave or repeat use
Flexural Modulus	Varies with durometer	135,000 psi

# Stock Tubing

4:1 Pebax and Polyolefin tubing is supplied in: 12" (25 cm) lengths | Custom lengths

## Samples

Samples are shipped flat and come individually wrapped with a "neck" on each end. To expand the tubing, slide the neck onto the dispensing tip attached to the nozzle of a hot box or air hose and add room-temperature air. Slide the component into the inflated tube and apply heat using a hot box or heat gun.

### 74 DUROMETER 4:1 PEBAX HEAT SHRINK TUBING

Expanded ID (min)	Recovered ID (max)	Expanded/Recovered Wall Thickness*	Color	Product ID
0.060" (1.50 mm)	0.020" (0.50 mm)	0.002" (0.05 mm)	Clear	CP4-060-002-74-CLR

### 72 DUROMETER 4:1 PEBAX HEAT SHRINK TUBING

Expanded ID (min)	Recovered ID (max)	Expanded/Recovered Wall Thickness*	Color	Product ID
0.070" (1.70 mm)	0.021" (0.50 mm)	0.0006" / 0.004" (0.10 mm)	Clear	P4-080-004-CLR
0.070" (1.70 mm)	0.021" (0.50 mm)	0.0006" / 0.004" (0.10 mm)	Black	P4-080-004-BLK
0.098" (2.50 mm)	0.035" (0.90 mm)	0.0015" / 0.010" (0.25 mm)	Clear	P4-120-010-CLR
0.120" (3.00 mm)	0.035" (0.90 mm)	0.0005" / 0.003" (0.07 mm)	Clear	P4-120-003-CLR
0.250" (6.30 mm)	0.070" (1.70 mm)	0.0008" / 0.006" (0.15 mm)	Clear	P4-280-006-CLR

### 63 DUROMETER 4:1 POLYOLEFIN HEAT SHRINK TUBING

Expanded ID (min)	Recovered ID (max)	Expanded/Recovered Wall Thickness*	Color	Product ID
0.040" (1.00 mm)	0.010" (0.25 mm)	0.0005" / 0.002" (0.05 mm)	Clear	U4-040-CLR
0.040" (1.00 mm)	0.010" (0.25 mm)	0.001" / 0.005" (0.1 mm)	Clear	X4-040-CLR
0.080" (2.00 mm)	0.020" (0.50 mm)	0.001" / 0.005" (0.1 mm)	Clear	X4-080-CLR
0.080" (2.00 mm)	0.020" (0.50 mm)	0.001" / 0.005" (0.1 mm)	Black	X4-080-BLK
0.140" (3.60 mm)	0.035" (0.90 mm)	0.001" / 0.003" (0.07 mm)	Clear	U4-140-CLR
0.140" (3.60 mm)	0.050" (1.30 mm)	0.002" / 0.009" (0.2 mm)	Clear	X4-140-CLR
0.240" (6.10 mm)	0.060" (1.50 mm)	0.001" / 0.003" (0.07 mm)	Clear	U4-240-CLR
0.360" (9.10 mm)	0.090" (2.30 mm)	0.001" / 0.005" (0.1 mm)	Black	U4-360-BLK

\*Tubing wall as supplied will be thinner than recovered wall thickness.

# Custom Tubing

4:1 tubing is available in custom: Colors | Durometers (Pebax only) | Expansion ratios | Cut lengths

#### Don't see what you're looking for?

Check out our latest list of stock tubing at [www.cobaltpolymers.com](http://www.cobaltpolymers.com).

#### Need tubing?

Request samples at <https://www.cobaltpolymers.com/order/pebax-polyolefin-samples>

Order small quantities at <https://chamfr.com/>

Request a quote at <https://www.cobaltpolymers.com/order/request-quote>

Have a question or want to discuss custom tubing to fit your engineering requirements?

Contact our Technical Team at [sales@cobaltpolymers.com](mailto:sales@cobaltpolymers.com) or (800) 337-0901.