

Pebax[®] Heat Shrink Tubing

2:1 Shrink Ratio



Pebax Heat Shrink Tubing has the unique ability to create a thermal bond with an underlying polymer or metal.

- **Highly flexible**
- **Thin walls**
- **Multiple durometers**
- **Durable**
- **Compatible with thermoplastic and metal substrates**
- **Maximum adhesion**
- **High shrink ratio**
- **Remains on device**
- **Excellent concentricity**
- **Conformal; tight fitting**
- **Low longitudinal shrinkage**
- **Superior OD surface finish**

APPLICATIONS

- Jacket for laser-cut hypotube
- Coating for tapered guidewire
- Outer layer for catheter shaft
- Cover for coils and braids
- Wire insulation
- Strain relief
- Wire bundling

CAPABILITIES

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

PROPERTIES

Shrink Temperature	~ 340° F/171° C
Durometers (Shore D)	40, 55, 63, 70, 72, 74
Elongation at Break	300% (for 72D)
Tensile Strength at Break	7,500 psi
Dielectric Strength	>500 volts/mil
Tubing Certification	USP Class VI
Sterilization	Stable with gamma, e-beam, or EtO sterilization Test for autoclave or repeat use
Longitudinal Shrinkage	<10%

Stock Tubing

2:1 Pebax tubing is supplied in: 60" (150 cm) lengths | Spools | Custom lengths

74 DUROMETER 2:1 PEBAX HEAT SHRINK TUBING

Expanded ID (min)	Recovered ID (max)	Recovered Wall Thickness*	Color	Product ID
0.030" (0.762 mm)	0.020" (0.50 mm)	0.002" (0.05 mm)	Clear	P2-030-002-74-CLR
0.060" (1.50 mm)	0.038" (0.96 mm)	0.003" (0.07 mm)	Clear	P2-060-003-74-CLR

72 DUROMETER 2:1 PEBAX HEAT SHRINK TUBING

0.014" (0.30 mm)	0.007" (0.18 mm)	0.002" (0.05 mm)	Clear	P2-014-002-CLR
0.018" (0.46 mm)	0.010" (0.25 mm)	0.005" (0.10 mm)	Black	CP2-018-005-BLK
0.022" (0.56 mm)	0.015" (0.38 mm)	0.002" (0.05 mm)	Clear	CP2-022-002-CLR
0.023" (0.58 mm)	0.015" (0.38 mm)	0.0035" (0.08 mm)	Black	P2-023-0035-BLK
0.038" (0.96 mm)	0.023" (0.55 mm)	0.002" (0.03 mm)	Clear	P2-038-002-CLR
0.036" (0.90 mm)	0.020" (0.50 mm)	0.004" (0.10 mm)	Clear	P2-040-004-CLR
0.036" (0.90 mm)	0.020" (0.50 mm)	0.004" (0.10 mm)	Black	P2-040-004-BLK
0.060" (1.50 mm)	0.035" (0.90 mm)	0.003" (0.07 mm)	Clear	P2-060-003-CLR
0.060" (1.50 mm)	0.035" (0.90 mm)	0.003" (0.07 mm)	White	CP2-060-003-WHT
0.060" (1.50 mm)	0.035" (0.90 mm)	0.010" (0.25 mm)	Clear	P2-060-010-CLR
0.065" (1.60 mm)	0.048" (1.20 mm)	0.0025" (0.06 mm)	Clear	P2-065-0025-CLR
0.089" (2.26 mm)	0.059" (1.49 mm)	0.0025" (0.06 mm)	Clear	P2-089-0025-CLR
0.100" (2.54 mm)	0.082" (2.08 mm)	0.0025" (0.06 mm)	Clear	P2-100-0025-CLR
0.130" (3.30 mm)	0.075" (1.90 mm)	0.006" (0.15 mm)	Clear	P2-140-006-CLR

70 DUROMETER 2:1 PEBAX HEAT SHRINK TUBING

0.065" (1.60 mm)	0.048" (1.20 mm)	0.003" (0.07 mm)	Clear	CP2-065-003-70-CLR
------------------	------------------	------------------	-------	--------------------

55 DUROMETER 2:1 PEBAX HEAT SHRINK TUBING

0.023" (0.55 mm)	0.015" (0.38 mm)	0.004" (0.10 mm)	Blue	CP2-023-004-55-286C
------------------	------------------	------------------	------	---------------------

40 DUROMETER 2:1 PEBAX HEAT SHRINK TUBING

0.036" (0.90 mm)	0.020" (0.50 mm)	0.004" (0.10 mm)	Clear	P2-040-004-40-CLR
0.060" (1.50 mm)	0.035" (0.90 mm)	0.003" (0.07 mm)	Clear	P2-060-003-40-CLR
0.060" (1.50 mm)	0.035" (0.90 mm)	0.010" (0.25 mm)	Clear	P2-060-010-40-CLR
0.130" (3.30 mm)	0.075" (1.90 mm)	0.006" (0.15 mm)	Clear	P2-140-006-40-CLR
0.160" (4.06 mm)	0.135" (3.43 mm)	0.003" (0.07 mm)	Clear	CP2-160-003-40-CLR
0.160" (4.06 mm)	0.135" (3.43 mm)	0.003" (0.07 mm)	White	CP2-160-003-40-WHT

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

Custom Tubing

2:1 Pebax tubing is available in custom: Colors | Durometers | Expansion ratios | Cut lengths

Don't see what you're looking for?

Check out our latest list of stock tubing at www.cobaltpolymers.com.

Need tubing?

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

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

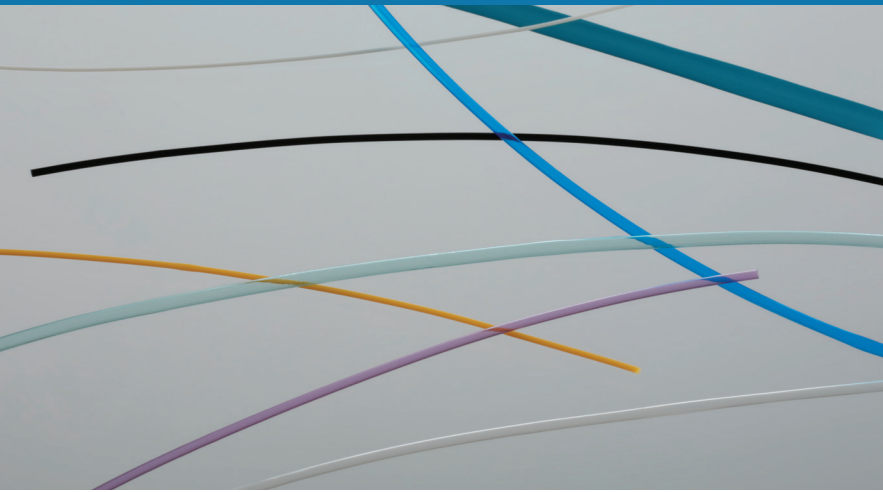
Request a quote at <https://www.cobaltpolymers.com/order/request-quote>

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

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

Polyolefin Heat Shrink Tubing

2:1 Shrink Ratio



High compressive strength makes this tubing ideal for electrical insulation and strain relief, potentially eliminating the need for adhesive.

- Flexible
- Excellent dielectric strength
- Thin walls
- Durable and tough
- Very low shrink temperature
- High shrink ratio
- Rapid recovery
- Excellent concentricity
- Good moisture/vapor barrier
- Controlled longitudinal shrinkage (<10%)

APPLICATIONS

- Insulation for electrosurgical instruments
- Jacket for laparoscopic devices
- Coating for tapered guidewire
- Wire insulation
- Cover for coils & braids
- Jacket for laser-cut hypotube
- Strain relief
- Reinforcement to protect splices & components
- Thermoplastic welding
- Probe coating

CAPABILITIES

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

PROPERTIES

Shrink Temperature	~ 220° F/105° C
Durometer (Shore D)	63
Dielectric Strength	1000 volts/mil
Tubing Certification	USP Class VI
Sterilization	Stable with gamma, e-beam, or EtO sterilization Test for autoclave or repeat use
Longitudinal Shrinkage	<10%
Flexural Modulus	135,000 psi

Stock Tubing

2:1 Polyolefin tubing is supplied in:

60" (150 cm) lengths | Spools | Custom lengths

63 DUROMETER 2:1 POLYOLEFIN HEAT SHRINK TUBING

Expanded ID (min)	Recovered ID (max)	Recovered Wall Thickness*	Color	Product ID
0.016" (0.40 mm)	0.010" (0.25 mm)	0.002" (0.05 mm)	Clear	U2-016-CLR
0.020" (0.50 mm)	0.010" (0.25 mm)	0.005" (0.10 mm)	Clear	X2-025-CLR
0.034" (0.90 mm)	0.020" (0.50 mm)	0.005" (0.10 mm)	Black	X2-034-BLK
0.034" (0.90 mm)	0.020" (0.50 mm)	0.005" (0.10 mm)	Clear	X2-034-CLR
0.050" (1.30 mm)	0.035" (0.90 mm)	0.002" (0.05 mm)	Clear	U2-055-CLR
0.066" (1.70 mm)	0.040" (1.00 mm)	0.003" (0.07 mm)	Clear	U2-070-CLR
0.066" (1.70 mm)	0.040" (1.00 mm)	0.009" (0.20 mm)	Clear	X2-070-CLR
0.100" (2.50 mm)	0.060" (1.50 mm)	0.004" (0.10 mm)	Clear	U2-110-CLR
0.140" (3.50 mm)	0.090" (2.30 mm)	0.005" (0.10 mm)	Black	U2-170-BLK

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

Custom Tubing

2:1 Polyolefin tubing is available in custom:

Colors | Durometers | Expansion ratios | Cut lengths

Don't see what you're looking for?

Check out our latest list of stock tubing at 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 or (800) 337-0901.

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.

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 or (800) 337-0901.