

**Part Number** DWT-MWT**Header** DWT-MWT Medium Wall Polyolefin Heat Shrink Tubing

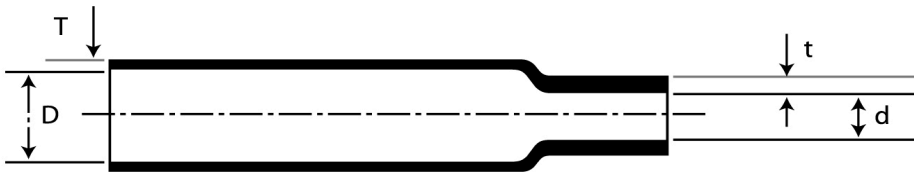
Description Thermosleeve-USA DWT-MWT medium wall heat shrink tubing provides good electrical insulation and has high resistance to impact and abrasion. Especially designed for reliable performance, DWT-MWT tubing is manufactured to cover a broader range of applications in fewer sizes *due to its bigger* shrink ratios. DWT-MWT has a minimum shrink temperature rating of 120 degrees C (248 degrees F). DWT-MWT is also available with adhesive liner...see Thermosleeve part number DWT-MWTA

Agency Approval & Compliance ROHS, Halogen free, SAE, Flame Retardant, UL224, REACH

Application DWT-MWT heat shrink tubing is widely used to provide insulation and strain relief cover to both wire terminations and electrical connectors. DWT-MWT shrinks quickly, requires no special skills and is easy to use.

Shrink Ratio and Operating Temperature DWT-MWT shrink ratios range between 3:1 and 4:1...please consult the Thermosleeve website for specific sizes and shrink ratios. The tubing's wall thickness will also change proportionally to the degree of recovery.

DWT-MWT has a continuous operating temperature rating of -55 degrees C (-67 degrees F) and 110 degrees C (230 degrees F)

Standard Sizes and Dimension

Size		As Supplied (mm)		After Recovery (mm)	
(mm)	(inch)	Inside Diameter (D)	Wall-thickness (T)	Inside Diameter (d)	Wall-thickness (t)
Φ8	5/16"	8		2.0	1.7
Φ9		9		3.0	1.9
Φ10	3/8"	10		3.0	1.9
Φ12	1/2"	12		3.0	2.0
Φ13		13		4.0	2.0
Φ16	5/8"	16		5.0	2.2
Φ19	3/4"	19		5.0	2.2
Φ22		22		6.0	2.5
Φ28	1 1/8"	28		6.0	2.5
Φ33	1 1/4"	33		8.0	2.7
Φ40	1-9/16"	40		12.0	2.7
Φ45	1-3/4"	45		12.0	2.7

MEDIUM & HEAVY WALL

Φ55	2-3/16"	55		16.0	2.8
Φ60		60		19.0	2.8
Φ65	2 1/2"	65		19.0	2.8
Φ70		70		22.0	3.0
Φ75	3"	75		22.0	3.0
Φ80		80		22.0	3.0
Φ85	3 1/2"	85		25.0	3.0
Φ95	4"	95		25.0	3.0
Φ115	4 1/2"	115		34.0	3.2
Φ140	5 1/2"	140		42.0	3.3
Φ160	6 3/8"	160		50.0	3.3
Φ180	7"	175		58.0	3.3
Φ205	8"	205		65.0	3.3

Typical Properties

Item	Specifications
Shrink Temperature (°C)	120°C
Temperature Range (°C)	-55 ~ 110
Longitudinal Change (%)	0-5%
Tensile Strength (MPa)	≥14MPa
Ultimate Elongation (%)	≥400%
Tensile Strength (MPa) - After Aging	13
Ultimate Elongation (%) - After Aging	≥380%
Volume Resistivity (Ω.cm)	≥10 ¹⁴ Ω.cm
Dielectric Strength (kV/mm)	≥21kV/mm
Concentricity (%)	70

Availability Four-foot lengths and cut pieces

Important Notice All information contained in this data sheet is believed to be reliable and accurate. It is advised however that the end user of this material evaluate the suitability of the product for their specific application.

Limited Warranty/Limited Liability Thermosleeve-USA offers no guarantees in respect to the accuracy of the information detailed in this document and accepts no explicit or applied liability as to the products use. In no instance will Thermosleeve-USA be liable for any eventual, indirect or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Thermosleeve-USA specifications are subject to change without notice; including changes in materials and processing that do not affect compliance of the products specification. Thermosleeve-USA guarantees the product to be free from defects in material and manufacturing at the time of purchase. If this product is found to be defective within the warranty period, at our option we will refund the purchase price, replace or repair the Thermosleeve-USA product.

**Part Number** DWT-MWTA**Header** DWT-MWTA Medium Wall Polyolefin Heat Shrink Tubing With Adhesive Liner

Description Thermosleeve-USA DWT-MWTA medium wall heat shrink tubing with adhesive liner provides good electrical insulation and has high resistance to impact and abrasion. When heated, the internal adhesive flows to form a positive seal creating an excellent barrier against moisture. Especially designed for reliable performance, DWT-MWTA tubing is manufactured to cover a broader range of applications in fewer sizes *due to its bigger shrink ratios*. DWT-MWTA has a minimum shrink temperature rating of 120 degrees C (248 degrees F). DWT-MWTA is also available without adhesive liners...see Thermosleeve part number MWT

Agency Approval & Compliance ROHS, Halogen free, SAE, Flame Retardant, UL224, REACH

Application DWT-MWTA heat shrink tubing with adhesive liner is designed to seal and protect components and electrical splices from moisture and corrosion. Widely used to provide insulation and strain relief cover to both wire terminations and electrical connectors, the adhesive liner bonds to a wide variety of materials including plastics, rubbers and metals. DWT-MWTA shrinks quickly, requires no special skills and is easy to use.

Shrink Ratio and Operating Temperature DWT-MWTA shrink ratios range between 3:1 and 4:1...please consult the Thermosleeve website for specific sizes and shrink ratios. The tubing's wall thickness will also change proportionally to the degree of recovery.

DWT-MWTA has a continuous operating temperature rating of -55 degrees C (-67 degrees F) and 110 degrees C (230 degrees F)

Standard Sizes and Dimension

Size		As supplied (mm)	After Recovery (mm)		Packing Length (Mt/roll)
(mm)	(inch)	Inside Diameter (D)	Inside Diameter (d)	Wall Thickness (t)	
Φ8	5/16"	≥8.0	≤2.0	≥1.7	1.00、1.22
Φ9		≥9.0	≤3.0	≥1.9	1.00、1.22
Φ10	3/8"	≥10.0	≤3.0	≥1.9	1.00、1.22
Φ12	1/2"	≥12.0	≤3.0	≥2.0	1.00、1.22
Φ13		≥13.0	≤4.0	≥2.0	1.00、1.22
Φ16	5/8"	≥16.0	≤5.0	≥2.2	1.00、1.22
Φ19	3/4"	≥19.0	≤5.0	≥2.2	1.00、1.22
Φ22		≥22.0	≤6.0	≥2.5	1.00、1.22
Φ28	1 1/8"	≥28.0	≤6.0	≥2.5	1.00、1.22

12753 Moore St. Cerritos, CA 90703 Local (562) 404-9998 Fax (562) 404-9698 Nationwide (800) 421-3536
Order Fax (800) 421-3538 E-mail sales@thermosleeve-usa.com Website <http://www.thermosleeve-usa.com>

MEDIUM & HEAVY WALL

Φ33	1 1/4"	≥33.0	≤8.0	≥2.5	1.00、1.22
Φ40	1-9/16"	≥40.0	≤12.0	≥2.7	1.00、1.22
Φ45	1-3/4"	≥45.0	≤12.0	≥2.7	1.00、1.22
Φ55	2-3/16"	≥55.0	≤16.0	≥2.8	1.00、1.22
Φ60		≥60.0	≤19.0	≥2.8	1.00、1.22
Φ65	2 1/2"	≥65.0	≤19.0	≥2.8	1.00、1.22
Φ70		≥70.0	≤22.0	≥3.0	1.00、1.22
Φ75	3"	≥75.0	≤22.0	≥3.0	1.00、1.22
Φ80		≥80.0	≤22.0	≥3.0	1.00、1.22
Φ85	3 1/2"	≥85.0	≤25.0	≥3.0	1.00、1.22
Φ95	4"	≥95.0	≤25.0	≥3.0	1.00、1.22
Φ115	4 1/2"	≥115.0	≤34.0	≥3.2	1.00、1.22
Φ140	5 1/2"	≥140.0	≤42.0	≥3.3	1.00、1.22
Φ160	6 3/8"	≥160.0	≤50.0	≥3.3	1.00、1.22
Φ180	7"	≥180.0	≤58.0	≥3.3	1.00、1.22
Φ205	8"	≥205.0	≤65.0	≥3.3	1.00、1.22

Typical Properties

Item	Specifications
Shrink Temperature (°C)	120°C
Temperature Range (°C)	-55°C-110°C
Longitudinal Change (%)	5%
Tensile Strength (MPa)	14MPa
Ultimate Elongation (%)	400%
Tensile Strength (MPa) - After Aging	13MPa
Ultimate Elongation (%) - After Aging	≥380%
Dielectric Voltage Withstand (kV/mm)	21
Volume Resistivity (Ω.cm)	1X10 ¹⁴ Ω.cm

Dielectric Strength (kV/mm)	21kV/mm
Concentricity (%)	70
Cracking Resistance	No Cracking
Cold blend(-55°C/4hrs)	No cracking
Copper corrosion	No corrosion
Water Absorption	0.15%
Softening Point	85
Peel Strength	8
Antibacterial Property	Pass

Availability Four-foot lengths and cut pieces

Important Notice All information contained in this data sheet is believed to be reliable and accurate. It is advised however that the end user of this material evaluate the suitability of the product for their specific application.

Limited Warranty/Limited Liability Thermosleeve-USA offers no guarantees in respect to the accuracy of the information detailed in this document and accepts no explicit or applied liability as to the products use. In no instance will Thermosleeve-USA be liable for any eventual, indirect or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Thermosleeve-USA specifications are subject to change without notice; including changes in materials and processing that do not affect compliance of the products specification. Thermosleeve-USA guarantees the product to be free from defects in material and manufacturing at the time of purchase. If this product is found to be defective within the warranty period, at our option we will refund the purchase price, replace or repair the Thermosleeve-USA product.



Part Number DWT-HWT

Header DWT-HWT Heavy Wall Polyolefin Heat Shrink Tubing

Description Thermosleeve-USA DWT-HWT heavy wall heat shrink tubing provides good electrical insulation and offers rugged resistance to impact and abrasion. Especially designed for reliable performance, DWT-HWT tubing is manufactured to cover a broader range of applications in fewer sizes *due to its bigger* shrink ratios. DWT-HWT has a minimum shrink temperature rating of 120 degrees C (248 degrees F). DWT-HWT is also available with adhesive liner....see Thermosleeve part number DWT-HWTA

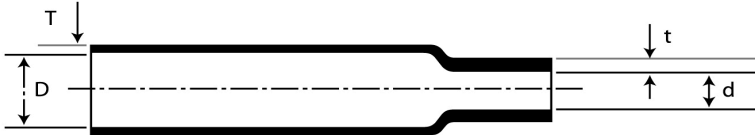
Agency Approval & Compliance ROHS, Halogen free, SAE, Flame Retardant, UL224, REACH

Application DWT-HWT heat shrink tubing is widely used to provide insulation and strain relief cover to both wire terminations and electrical connectors. DWT-HWT shrinks quickly, requires no special skills and is easy to use.

Shrink Ratio and Operating Temperature DWT-HWT shrink ratios range between 3:1 and 4:1...please consult the Thermosleeve website for specific sizes and shrink ratios. The tubing's wall thickness will also change proportionally to the degree of recovery.

DWT-HWT has a continuous operating temperature rating of -55 degrees C (-67 degrees F) and 110 degrees C (230 degrees F)

Standard Sizes and Dimension



Size	As Supplied (mm)		After Recovery (mm)		Length (mt/roll)
	Inside Diameter (D)	Wall-thickness (T)	Inside Diameter (d)	Wall-thickness (t)	
Φ9	≥9.0		≤3.0	≥2.0	1.00、1.22
Φ13	≥13.0		≤4.0	≥2.4	1.00、1.22
Φ16	≥16.0		≤5.0	≥2.5	1.00、1.22
Φ19	≥19.0		≤5.0	≥2.5	1.00、1.22
Φ22	≥22.0		≤6.0	≥2.7	1.00、1.22
Φ33	≥33.0		≤8.0	≥3.2	1.00、1.22
Φ40	≥40.0		≤12.0	≥4.0	1.00、1.22
Φ45	≥45.0		≤12.0	≥4.0	1.00、1.22
Φ55	≥55.0		≤16.0	≥4.0	1.00、1.22
Φ65	≥65.0		≤19.0	≥4.0	1.00、1.22
Φ75	≥75.0		≤22.0	≥4.0	1.00、1.22

MEDIUM & HEAVY WALL

Φ80	≥80.0		≤22.0	≥4.0	1.00、1.22
Φ85	≥85.0		≤25.0	≥4.2	1.00、1.22
Φ95	≥95.0		≤30.0	≥4.2	1.00、1.22
Φ105	≥105.0		≤30.0	≥4.2	1.00、1.22
Φ115	≥115.0		≤34.0	≥4.2	1.00、1.22
Φ130	≥130.0		≤36.0	≥4.2	1.00、1.22
Φ140	≥140.0		≤37.0	≥4.2	1.00、1.22
Φ160	≥160.0		≤50.0	≥4.2	1.00、1.22
Φ180	≥180.0		≤50.0	≥4.2	1.00、1.22
Φ200	≥200.0		≤60.0	≥4.2	1.00、1.22

Typical Properties

Property	Specification
Shrink Temperature (°C)	120°C
Operating Temperature (°C)	-55 ~ 110°C
Tensile strength	14.5 MPa
Ultimate Elongation (%)	≥450
Tensile Strength (MPa) - After Aging	13.5
Ultimate Elongation (%) - After Aging	400
Volume Resistivity	1014
Concentricity	70
Longitudinal shrinkage	5
Dielectric strength	≥21kV/mm
Cracking Resistance	No cracking

Availability Four-foot lengths and cut pieces

Important Notice All information contained in this data sheet is believed to be reliable and accurate. It is advised however that the end user of this material evaluate the suitability of the product for their specific application.

Limited Warranty/Limited Liability Thermosleeve-USA offers no guarantees in respect to the accuracy of the information detailed in this document and accepts no explicit or applied liability as to the products use. In no instance will Thermosleeve-USA be liable for any eventual, indirect or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Thermosleeve-USA specifications are subject to change without notice; including changes in materials and processing that do not affect compliance of the products specification. Thermosleeve-USA guarantees the product to be free from defects in material and manufacturing at the time of purchase. If this product is found to be defective within the warranty period, at our option we will refund the purchase price, replace or repair the Thermosleeve-USA product.

12753 Moore St. Cerritos, CA 90703 **Local** (562) 404-9998 **Fax** (562) 404-9698 **Nationwide** (800) 421-3536
Order Fax (800) 421-3538 **E-mail** sales@thermosleeve-USA.com **Website** <http://www.thermosleeve-usa.com>



Part Number DWT-HWTA

Header DWT-HWTA Heavy Wall Polyolefin Heat Shrink Tubing With Adhesive Liner

Description Thermosleeve-USA DWT-HWTA heavy wall heat shrink tubing with adhesive liner provides exceptional reliability and offers rugged resistance to impact and abrasion. DWT-HWTA tubing protects against the most extreme weather conditions and is resistant to acids and alkalis. When heated, the internal adhesive flows to form a positive seal creating an excellent barrier against moisture. Especially designed for reliable performance, DWT-HWTA tubing is manufactured to cover a broader range of applications in fewer sizes *due to its bigger* shrink ratios. DWT-HWTA has a minimum shrink temperature rating of 120 degrees C (248 degrees F). DWT-HWTA is also available without adhesive liner...see Thermosleeve part number HWT

Agency Approval & Compliance ROHS, Halogen free, SAE, Flame Retardant, UL224, REACH

Application DWT-HWTA heat shrink tubing with adhesive liner is designed to seal and protect components and electrical splices from moisture and corrosion. Widely used to provide insulation and strain relief cover to both wire terminations and electrical connectors, the adhesive liner bonds to a wide variety of materials including plastics, rubbers and metals. DWT-HWTA shrinks quickly, requires no special skills and is easy to use.

Shrink Ratio and Operating Temperature DWT-HWTA shrink ratios range between 3:1 and 4:1...please consult the Thermosleeve website for specific sizes and shrink ratios. The tubing's wall thickness will also change proportionally to the degree of recovery.

DWT-HWTA has a continuous operating temperature rating of -55 degrees C (-67 degrees F) and 110 degrees C (230 degrees F)

Standard Sizes and Dimension



Size	As Supplied (mm)		After Recovery (mm)	
	Inside Diameter (D)	Wall-thickness (T)	Inside Diameter (d)	Wall-thickness (t)
Φ9	≥9.0		≤3.0	≥2.0
Φ13	≥13.0		≤4.0	≥2.4
Φ16	≥16.0		≤5.0	≥2.5
Φ19	≥19.0		≤5.0	≥2.5
Φ22	≥22.0		≤6.0	≥2.7
Φ33	≥33.0		≤8.0	≥3.2
Φ40	≥40.0		≤12.0	≥4.0
Φ45	≥45.0		≤12.0	≥4.0
Φ55	≥55.0		≤16.0	≥4.0

MEDIUM & HEAVY WALL

Φ65	≥65.0		≤19.0	≥4.0
Φ75	≥75.0		≤22.0	≥4.0
Φ80	≥80.0		≤22.0	≥4.0
Φ85	≥85.0		≤25.0	≥4.2
Φ95	≥95.0		≤30.0	≥4.2
Φ105	≥105.0		≤30.0	≥4.2
Φ115	≥115.0		≤34.0	≥4.2
Φ130	≥130.0		≤36.0	≥4.2
Φ140	≥140.0		≤37.0	≥4.2
Φ160	≥160.0		≤50.0	≥4.2
Φ180	≥180.0		≤50.0	≥4.2
Φ200	≥200.0		≤60.0	≥4.2

Typical Properties

Property	Specification
Shrink Temperature (°C)	120°C
Operating Temperature (°C)	-55 ~ 110°C
Tensile strength	14.5 MPa
Ultimate Elongation (%)	≥450
Tensile Strength (MPa) - After Aging	13.5
Ultimate Elongation (%) - After Aging	400
Volume Resistivity	10 ¹⁴
Concentricity	70
Longitudinal shrinkage	5
Dielectric strength	≥21kV/mm
Cracking Resistance	No cracking

Adhesive	
Water absorptivity	0.15%
Softening Point	85°C
Peel Strength (N/25mm)	8
Copper stability	Pass
Antibacterial Property	Pass

12753 Moore St. Cerritos, CA 90703 **Local** (562) 404-9998 **Fax** (562) 404-9698 **Nationwide** (800) 421-3536
Order Fax (800) 421-3538 **E-mail** sales@thermosleeve-USA.com **Website** <http://www.thermosleeve-usa.com>

Availability Four-foot lengths and cut pieces

Important Notice The information related to Thermosleeve-USA products both in printed or electronic format is believed to be reliable but the accuracy and completeness is not guaranteed. We suggest that before using this product, you evaluate and determine if it is suitable to your intended application. Thermosleeve-USA assumes no risk or liability associated with the use of this material. Any statements related to this product that are not contained in the current Thermosleeve-USA online or printed literature, or any contrary statements referenced on purchase order, shall have no force or effect unless expressly agreed to in writing and signed by an office of Thermosleeve-USA.

Limited Warranty/Limited Liability Thermosleeve-USA offers no guarantees in respect to the accuracy of the information detailed in this document and accepts no explicit or applied liability as to the products use. In no instance will Thermosleeve-USA be liable for any eventual, indirect or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Thermosleeve-USA specifications are subject to change without notice; including changes in materials and processing that do not affect compliance of the products specification. Thermosleeve-USA guarantees the product to be free from defects in material and manufacturing at the time of purchase. If this product is found to be defective within the warranty period, at our option we will refund the purchase price, replace or repair the Thermosleeve-USA product.



Part Number DWT-HWTA6X

Header DWT-HWTA6X Adhesive-Lined Dual Wall Heat Shrink

Description DWT-HWTA6X is a high shrink ratio, heavy wall irradiated polyolefin heat shrink tubing with an adhesive liner that provides excellent mechanical protection to cable joints and terminations. When heated to a minimum of 120 degree C (248 degrees F), DWT-HWTA6X will begin to shrink and the adhesive will flow freely around the substrate. The adhesive will bond to a variety of materials including metals, plastics and rubbers. Once cooled, the adhesive will solidify and provide an excellent barrier against moisture.

Agency Approval & Compliance ROHS, SAE, Halogen Free, Flame Retardant, UL224, REACH

Application DWT-HWTA6X series of tubing can be used in a variety of applications where extreme differences in size exist between cables, connectors and components. DWT-HWTA6X high shrink ratios allows for a close fit on a wide variety of irregular shapes and configurations

Shrink Ratio and Operating Temperature DWT-HWTA6X has a 6:1 shrink ratio. When fully recovered, the 6:1 material will shrink to sixteen percent (16%) of its original supplied diameter. The tubing's wall thickness will also change proportionally to the degree of recovery.

Operating temperature range is from -55 degree C to 110 degrees C (-67 degrees F to 230 degrees F) and the minimum shrink temperature is 120 degree C (248 degrees F)

Standard Sizes and Dimension



Size (inches)	Size (mm)	As supplied	Recovered		Shape/Style	Std Length (mm)
		(D) Inside Dia. (mm, Min.)	(d) Inside Dia. (mm, Max.)	(T) Wall thickness (mm, Min.)		
3/4"	19.0/3.2	19	3.2	3.2	O	1000-1220
1-3/8"	33.0/5.5	33	5.5	3.4	O	1000-1220
1-3/4"	44.4/7.7	44.4	7.4	3.6	O	1000-1220
2"	50.8/8.3	50.8	8.3	4.3	O	1000-1220
2-3/4"	69.8/11.7	69.8	11.7	4.7	O	1000-1220
3-1/2"	88.9/17.1	88.9	17.1	4.7	O	1000-1220
4-3/4"	119.4/22.9	119.4	22.9	4.7	O	1000-1220

Technical Data

Property	Test Method	Typical Data
Operating Temperature	IEC 216	-55°C - 110°C
Tensile strength	ASTM D2671	≥14.2MPa

12753 Moore St. Cerritos, CA 90703 Local (562) 404-9998 Fax (562) 404-9698 Nationwide (800) 421-3536
 Order Fax (800) 421-3538 E-mail sales@thermosleeve-USA.com Website http://www.thermosleeve-usa.com

MEDIUM & HEAVY WALL

Elongation at break	ASTM D2671	≥450%
Elongation at break after aging	ASTM D2671/150°C, 168hrs	≥400%
Longitudinal shrinkage	UL224	5%
Dielectric strength	IEC243	≥21kV/mm
Volume Resistivity	IEC93	≥10 ¹⁴ Ω·cm
Concentricity	ASTM D2671	70
Adhesive		
Water absorptivity	ISO 62	≤0.15%
Softening Point	ASTM-E28	85°C
Peel Strength (PE)	DIN 30672	8N/cm
Copper stability	ASTM D2671	Pass
Resistance to fungus and decay	ISO 846	Pass

Availability Four-foot lengths, and cut pieces

Important Notice All information contained in this data sheet is believed to be reliable and accurate. It is advised however that the end user of this material evaluate the suitability of the product for their specific application.

Limited Warranty/Limited Liability Thermosleeve-USA offers no guarantees in respect to the accuracy of the information detailed in this document and accepts no explicit or applied liability as to the products use. In no instance will Thermosleeve-USA be liable for any eventual, indirect or consequential damage or damages arising from the sale, resale, transfer, use or misuse of the product. Thermosleeve-USA specifications are subject to change without notice; including changes in materials and processing that do not affect compliance of the products specification. Thermosleeve-USA guarantees the product to be free from defects in material and manufacturing at the time of purchase. If this product is found to be defective within the warranty period, at our option we will refund the purchase price, replace or repair the Thermosleeve-USA product.