

# Thick-Wall Heat Shrink Tubing



RAYCHEM | RAYCHEM WCSM

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**Our Raychem WCSM Thick-Wall Heat Shrink Tubing has high electrical characteristics and mechanical strength for low voltage applications**



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Our Raychem WCSM Thick-Wall Heat Shrink Tubing has a >3:1 shrink ratio and is designed for the insulation of low voltage cable accessories and for sealing, protection and jacketing on low, medium and high voltage cables.



Flammability Performance: **Non-Flame-Retardant**

Flexibility: **Semi-Rigid**

Shrink Ratio: **> 3:1**

Wall Style (Excluding Adhesive): **Single**

**Our Raychem WCSM Thick-Wall Heat Shrink Tubing is made of heat shrink polymer, which is halogen-free and stabilized against UV irradiation.**

It is field-proven for long-term reliability in harsh climatic conditions and polluted environments, and has a decades-long shelf life when stored under normal conditions.

During heating, the thick-wall tubing shrinks to the original smaller extruded diameter, fitting tightly over a wide range of cable sizes and cable accessories because of its high shrink ratio. At the same time, the tubing's inner sealant wall gives a reliable moisture seal over even extremely irregular shapes. The mechanical strength of our Raychem Thick-Wall Heat Shrink Tubing enables immediate back-filling of cable trenches after jointing. This tubing offers the electrical and physical properties of cable over sheath and the core insulation of low voltage cables combined with ruggedness and ease of installation. It can be used to seal against moisture of cable splices and for mechanical protection of outer re-jacketing in low, medium and high voltage applications.



**Key Features**

- Thick-wall, cross-linked polyolefin, stabilized against UV irradiation and weathering
- Halogen and silicone-free material, noncorrosive, non-toxic, free of lead and aluminium
- Available inline coated with hot melt adhesive
- Compliant to RoHS and REACH regulations
- Approved for offshore applications
- Color black, >3:1 shrink ratio
- Decades-long shelf life under normal storage conditions

**Improving Grid Reliability**

**Our Raychem Heat Shrink Tubing**

Discover our Range of Raychem Heat Shrink Tubing for Power Systems

**Features**

**Product Type Features**

Coating Style	Inline
Installation Technology	Heat Shrink
Adhesive Coating	With, Without
Wall Style (Excluding Adhesive)	Single

**Body Features**

Primary Product Material	Crosslinked Polyolefin
Primary Product Color	Black
Flexibility	Semi-Rigid
Shrink Ratio	> 3:1

**Dimensions**

Compatible Cable Diameter (Max) (mm)	10, 14, 22, 31, 44, 50, 63, 81, 100, 118, 144,
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	162, 180, 225, 295, 350
Compatible Cable Diameter (Max) (in)	.393, 3.937, 4.645
Compatible Cable Diameter (Min) (mm)	3.5, 4.5, 6.5, 9, 13, 17.5, 18, 22, 28, 33, 38, 55, 72, 105, 125
Compatible Cable Diameter (Min) (in)	.137, 1.299, 1.496
Expanded Inside Diameter (Min) (mm)	12, 16, 24, 34, 48, 56, 70, 90, 110, 130, 160, 180, 200, 250, 280, 320, 385
Recovered Inside Diameter (Max) (mm)	3, 4, 6, 8, 12, 16, 20, 25, 30, 35, 50, 65, 70, 95, 110
Product Length (mm)	60, 75, 80, 100, 125, 150, 170, 175, 200, 220, 225, 230, 250, 280, 300, 350, 400, 440, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 1000, 1100, 1200, 1250, 1300, 1350, 1400, 1500, 1550, 2000
Recovered Wall Thickness (Max) (mm)	2, 2.4, 2.7, 4, 4.3, 4.4, 4.5
Wall Thickness	Thick, Thick/Heavy

### Usage Conditions

Environmental Resistance	Contaminated Water, Moisture, Rain, Salt Water, Weathering
Fluid Resistance Type	Hydrocarbons, Transformer Oil
Flammability Performance	Non-Flame-Retardant

### Operation/Application

Thermal Resistance	Applicable for Low Temperatures, Applicable for Low Temperatures, Applicable for High Temperatures, Flame-Retardant
Marine-Offshore-Shipbuilding Certified	Yes
Mechanical Resistance	Abrasion Resistant, Against Mechanical Impact or Damage
UV-Stabilized	Yes

### Industry Standards

Compatible With Agency/Standards Products	CSA, UL
Compatible With Approved Standards Products	HD631.2, IEC 60684-3-214, IEC 60684-3-246, IEC 60684-3-247

### Product Availability

Product Availability	Americas, Asia, Australia, New Zealand & Pacific Islands, China, Europe, Middle East & Africa
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**Packaging Features**

Spool Length (m)	100, 150, 250, 300, 350, 80
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**Reference Number**

TE Internal Number	CAT-WCSM
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SEE PRODUCTS ON NEXT PAGE

Products (1 of 5)



WCSM-110/30-1200-S-(B5)

WCSM-56/16-1200-S-(B10)

WCSM-34/8-1200-S-(B25)

WCSM-48/12-1200-S-(B10)

TE Part #	EE0495-000	EE0477-000	EE0461-000	EE0471-000
Product Availability	Americas	Americas	Americas	Americas
Adhesive Coating	With	With	With	With
Compatible Cable Diameter (Max)	100 mm	50 mm	31 mm	44 mm
Compatible Cable Diameter (Min)	33 mm	18 mm	9 mm	13 mm
Expanded Inside Diameter (Min)	110 mm	56 mm	34 mm	48 mm
Recovered Inside Diameter (Max)	30 mm	16 mm	8 mm	12 mm
Product Length	1200 mm	1200 mm	1200 mm	1200 mm
Recovered Wall Thickness (Max)	4.3 mm	4.4 mm	4 mm	4.5 mm
Wall Thickness	Thick/Heavy	Thick/Heavy	Thick/Heavy	Thick/Heavy
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53 /EC	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM
Series	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM

**\*EU RoHS Directive 2011/65/EU**

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

**\*\*EU ELV Directive 2000/53/EC**

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds.

Products (2 of 5)



WCSM-56/16-300-S-(B30)

WCSM-70/20-1200-S-(B10)

WCSM-12/3-1200-S-(B25)

WCSM-24/6-1200-S-(B25)

TE Part #	EE0474-000	EE0488-000	EE0435-000	EE0450-000
Product Availability	Americas	Americas	Americas	Americas
Adhesive Coating	With	With	With	With
Compatible Cable Diameter (Max)	50 mm	63 mm	10 mm	22 mm
Compatible Cable Diameter (Min)	18 mm	22 mm	3.5 mm	6.5 mm
Expanded Inside Diameter (Min)	56 mm	70 mm	12 mm	24 mm
Recovered Inside Diameter (Max)	16 mm	20 mm	3 mm	6 mm
Product Length	300 mm	1200 mm	1200 mm	1200 mm
Recovered Wall Thickness (Max)	4.4 mm	4.4 mm	2 mm	2.7 mm
Wall Thickness	Thick/Heavy	Thick/Heavy	Thick/Heavy	Thick/Heavy
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53 /EC	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM
Series	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM

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Products (3 of 5)



WCSM-34/8-300-S-(B50)

WCSM-16/4-1200-S-(B25)

WCSM-180/50-600/S

WCSM-56/16-225-S-(B30)

TE Part #	EE0455-000	EE0439-000	027316-000	EE0475-000
Product Availability	Americas	Americas	Americas, Asia, Australia, New Zealand & Pacific Islands, China, Europe, Middle East & Africa	Americas
Adhesive Coating	With	With	With	With
Compatible Cable Diameter (Max)	31 mm	14 mm	162 mm	50 mm
Compatible Cable Diameter (Min)	9 mm	4.5 mm	55 mm	18 mm
Expanded Inside Diameter (Min)	34 mm	16 mm	180 mm	56 mm
Recovered Inside Diameter (Max)	8 mm	4 mm	50 mm	16 mm
Product Length	300 mm	1200 mm	600 mm	225 mm
Recovered Wall Thickness (Max)	4 mm	2.4 mm	4.3 mm	4.4 mm
Wall Thickness	Thick/Heavy	Thick/Heavy	Thick/Heavy	Thick/Heavy
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53/EC	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM
Series	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM

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Products (4 of 5)



WCSM-48/12-300-S-(B40)

WCSM-24/6-300-S-(B50)

WCSM-24/6-225-S-(B50)

WCSM-70/20-300-S-(B15)

TE Part #	EE0466-000	EE0443-000	EE0446-000	EE0484-000
Product Availability	Americas	Americas	Americas	Americas
Adhesive Coating	With	With	With	With
Compatible Cable Diameter (Max)	44 mm	22 mm	22 mm	63 mm
Compatible Cable Diameter (Min)	13 mm	6.5 mm	6.5 mm	22 mm
Expanded Inside Diameter (Min)	48 mm	24 mm	24 mm	70 mm
Recovered Inside Diameter (Max)	12 mm	6 mm	6 mm	20 mm
Product Length	300 mm	300 mm	225 mm	300 mm
Recovered Wall Thickness (Max)	4.5 mm	2.7 mm	2.7 mm	4.4 mm
Wall Thickness	Thick/Heavy	Thick/Heavy	Thick/Heavy	Thick/Heavy
EU RoHS Directive 2011/65 /EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53 /EC	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant	EU ELV Compliant
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM
Series	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM

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Products (5 of 5)



WCSM-70/20-1000/S(S5)

WCSM-90/25-1500/S(S5)

WCSM-12/3-300-S(B50)

WCSM-56/16-1000/S(S10)

TE Part #	CU5152-000	CU4610-000	EE0433-000	CU7528-000
Product Availability	Americas, Asia, Australia, New Zealand & Pacific Islands, China, Europe, Middle East & Africa	Americas, Asia, Australia, New Zealand & Pacific Islands, China, Europe, Middle East & Africa	Americas	Americas, Asia, Australia, New Zealand & Pacific Islands, China, Europe, Middle East & Africa
Adhesive Coating	With	With	With	With
Compatible Cable Diameter (Max)	63 mm	81 mm	10 mm	50 mm
Compatible Cable Diameter (Min)	22 mm	28 mm	3.5 mm	18 mm
Expanded Inside Diameter (Min)	70 mm	90 mm	12 mm	56 mm
Recovered Inside Diameter (Max)	20 mm	25 mm	3 mm	16 mm
Product Length	1000 mm	1500 mm	300 mm	1000 mm
Recovered Wall Thickness (Max)	4.4 mm	4.3 mm	2 mm	4.4 mm
Wall Thickness	Thick/Heavy	Thick/Heavy	Thick/Heavy	Thick/Heavy
EU RoHS Directive 2011/65/EU	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant	EU RoHS Compliant
EU ELV Directive 2000/53/EC	EU ELV Compliant	EU ELV Compliant	Not Yet Reviewed for EU ELV	EU ELV Compliant
Product Families	RAYCHEM	RAYCHEM	RAYCHEM	RAYCHEM
Series	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM	RAYCHEM WCSM

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## Related Materials

### Data Sheet

WCSM HEAT-SHRINK TUBING IEEE

English

### Data Sheet

WCSM HEAT SHRINK TUBING IEC

English

## Also in the Series | RAYCHEM WCSM



Power Cable Tubing & Accessories  
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