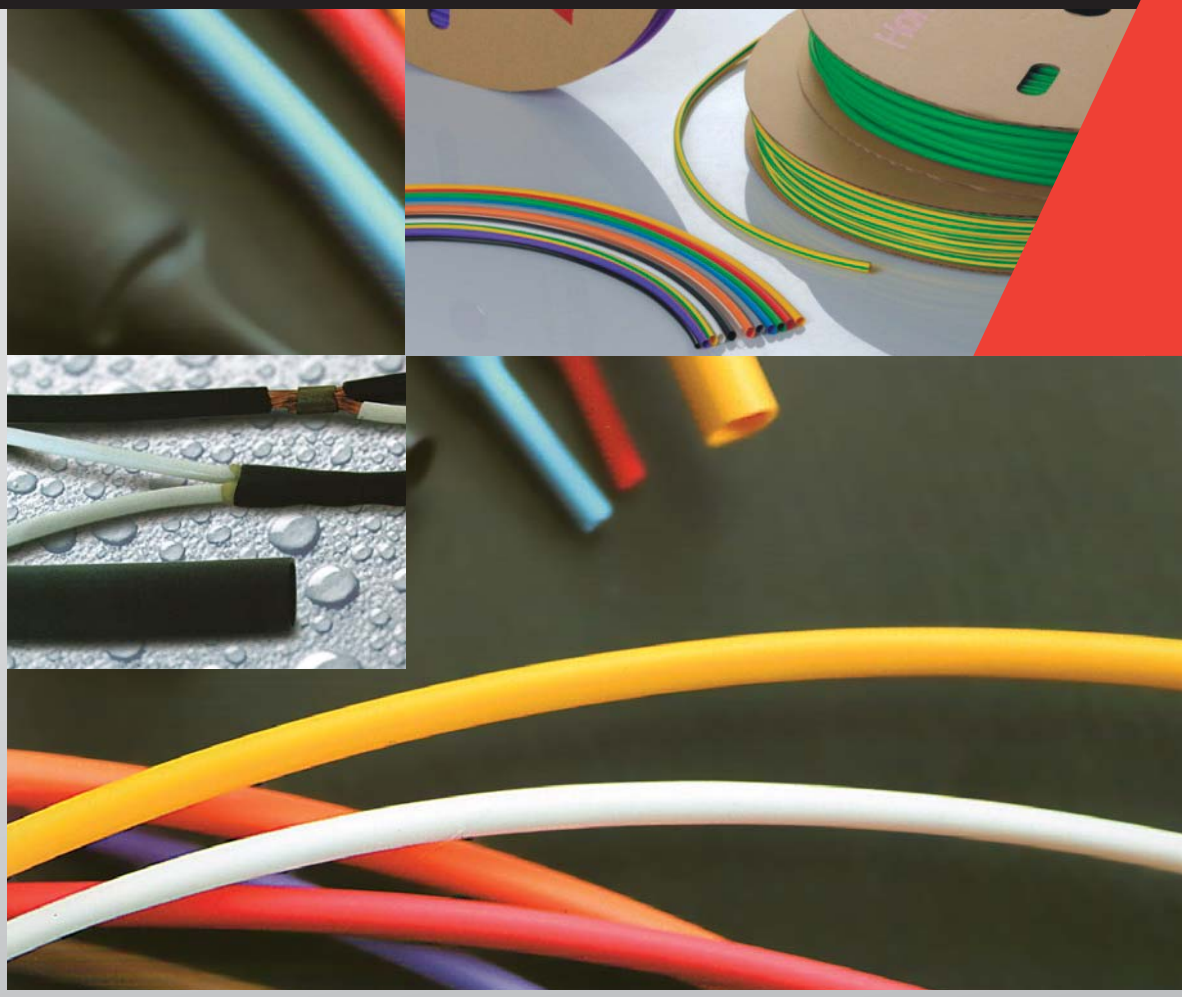
ENGINEERING SUPPLIES
(WA) PTY LTD A.C.N. 075 892 956

Termco Heatshrink



Thin Wall Tubing (Flame Retardant)

Clear Thin Wall Tubing

Green/Yellow Thin Wall Tubing

Dual Wall Tubing

Medium Wall Tubing

Cable End Caps

Heat Shrink Miniature End Cap

Heat Shrinkable Cable Repair Sleeve

Low Voltage Heat Shrinkable
Joints and Terminations

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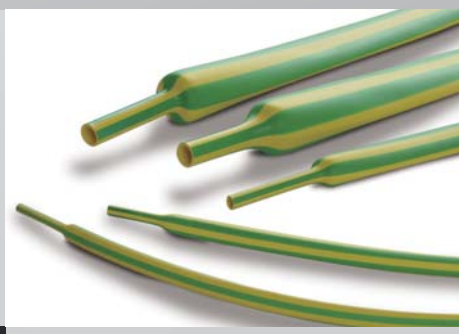
TERMCO HEATSHRINK



TERMCO
HEATSHRINK

Contents

HS Thin Wall Tubing (Flame Retardant)

Flexible, Flame Retardant, High Performance Tubing

Features:

- Cross linked polyolefin
- Flame retardant
- General purpose
- High flexibility
- Wide range of colours
- Operating temp.: -55ºC to +125ºC
- Min. Shrink temp.: 70°C
- Min. Full recovery temp.: 100°C
- Shrink ratio 2:1
- RoHS compliant

Approvals

c UL us 125°C vW-1 600V

Technical Properties:

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	>14MPa
Ultimate elongation	ASTM D 2671	>400%
Longitudinal shrinkage	UL 224	0 ± 5%
Eccentricity	ASTM D 2671	<30%
Heat aging Tensile strength Ultimate elongation	158°C, 168 hrs	 >12MPa >350%
Flammability	VW-1	Pass
Voltage withstand	ASTM D 2671/AC 2500V, 1min	No breakdown
Volume resistance	IEC 93	$>10^{14}\Omega$.cm
Copper stability	UL 224	Pass
Copper corrosion	UL 224	No corrosion

Dimensions:

Size (mm)	As Supplied (mm)	After Recovered (mm)		Standard Length
	D*(Min)	d*(Max)	w1*(Min)	(m/spool)
1.5	1.50	0.75	0.36	200
2.5	2.50	1.25	0.44	200
3.5	3.50	1.75	0.44	200
5	5.00	2.50	0.56	100
7	7.00	3.50	0.56	50
10	10.0	5.00	0.56	50
13	13.0	6.50	0.65	50
16	16.0	8.00	0.69	50
20	20.0	10.0	0.80	50
25	25.0	12.5	0.90	50
30	30.0	15.0	0.90	50
40	40.0	20.0	1.00	25
50	50.0	25.0	1.00	25
80	80.0	40.0	1.20	25
100	100	50.8	1.30	25
125	125	63.5	1.30	15

D* = Inner diameter as supplied d* = Inner diameter after fully recovered w1* = Total recovered wall thickness

Ordering Information:

Standard Colours:

- Black
- Red
- Blue
- Yellow
- Green
- White

Packaging:

- Standard packaging on spools
- 1.22m individual cut lengths

HS Clear Thin Wall Tubing

Clear General Purpose, Non Flame Retardant Tubing

Features:

- Commercial grade
- Excellent electrical and physical properties
- 100% transparent
- Operating temp.: 55°C to +105°C
- Min. Shrink temp.: 70°C
- Min. Full recovery temp.: 95°C
- Shrink ratio: 2:1
- RoHS compliant

Technical Properties:

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	>12MPa
Ultimate elongation	ASTM D 2671	>400%
Longitudinal shrinkage	UL 224	0 ± 5%
Eccentricity	ASTM D 2671	<30%
Heat aging Tensile strength Ultimate elongation	136°C, 168 hrs	 >11MPa >200%
Flammability	–	Flammable
Voltage withstand	ASTM D 2671/AC 2500V, 1min	No breakdown
Volume resistance	ASTM D 2671	$>10^{14}\Omega$.cm
Copper stability	UL 224	Pass
Copper corrosion	UL 224	No corrosion

Dimensions:

Size (mm)	As Supplied (mm)	After Recovered (mm)		Standard Length
	D*(Min)	d*(Max)	w1*(Min)	(m/spool)
1.5	1.50	0.75	0.36	200
2.5	2.50	1.25	0.44	200
3.5	3.50	1.75	0.44	200
5	5.00	2.50	0.56	100
7	7.00	3.50	0.56	50
10	10.0	5.00	0.56	50
13	13.0	6.50	0.65	50
16	16.0	8.00	0.69	50
20	20.0	10.0	0.80	50
25	25.0	12.5	0.80	50
30	30.0	15.0	0.90	50
40	40.0	20.0	1.00	25
50	50.0	25.0	1.00	25
80	80.0	40.0	1.20	25
100	100	50.0	1.30	25
125	125	63.5	1.30	15

D* = Inner diameter as supplied d* = Inner diameter after fully recovered w1* = Total recovered wall thickness

Ordering Information:

Standard Colours:

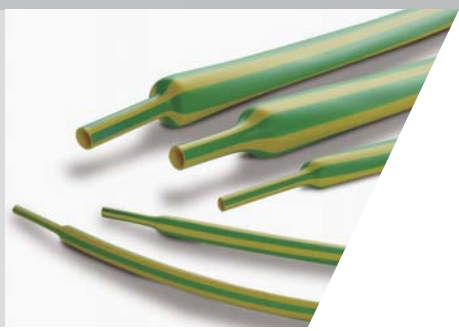
☐ Clear

Packaging:

- Standard packaging on spools
- 1.2m individual cut lengths

HS Green/Yellow Thin Wall Tubing

Green & Yellow Striped, Flexible, Flame Retardant Tubing



Features:

- Cross linked polyolefin
- Highly flame retardant
- Outstanding physical, chemical properties
- Excellent electrical properties
- UV resistant
- Meets: SAE-AMS-DTL-23053/5 Class 1 & 3
- Operating temp.: -55°C to +125°C
- Min. Shrink temp.: 70°C
- Min. Full recovery temp.: 100°C
- Shrink ratio 2:1
- RoHS compliant

Approvals

125°C VW-1 600V

Technical Properties:

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	>14MPa
Ultimate elongation	ASTM D 2671	>600%
Longitudinal shrinkage	UL 224	0 ± 5%
Eccentricity	ASTM D 2671	<35%
Heat aging Tensile strength Ultimate elongation	175°C, 168 hrs	 >11MPa >350%
Flammability	VW-1	Pass
Voltage withstand	ASTM D 2671/AC 2500V, 1min	No breakdown
Dielectric strength	ASTM D 150	20 kV/mm
Volume resistance	IEC 93	$>10^{14}\Omega$.cm
Copper stability	UL 224	Pass
Copper corrosion	UL 224	No corrosion

Dimensions:

Size (mm)	As Supplied (mm)	After Recovered (mm)		Standard Length
	D*(Min)	d*(Max)	w1*(Min)	(m/spool)
1.5	1.50	0.75	0.36	200
2.5	2.50	1.25	0.44	200
3.5	3.50	1.75	0.44	200
5	5.00	2.50	0.56	100
7	7.00	3.50	0.56	50
10	10.0	5.00	0.56	50
13	13.0	6.50	0.65	50
16	16.0	8.00	0.69	50
20	20.0	10.0	0.80	50
25	25.0	12.5	0.80	50
30	30.0	15.0	0.90	50
40	40.0	20.0	1.00	25
50	50.0	25.0	1.00	25
80	80.0	40.0	1.20	25

D* = Inner diameter as supplied d* = Inner diameter after fully recovered w1* = Total recovered wall thickness

Ordering Information:

Standard Colours:

Green and Yellow striped

Packaging:

- Standard packaging on spools
- 1.22m individual cut lengths

DWL Dual Wall Tubing

Adhesive Lined, Flexible Tubing, 3:1 Shrink Ratio

Features:

- Cross linked adhesive lined polyolefin
- Flame retardant
- Co-extrusion technology
- Excellent sealing and insulation properties
- Bonds perfectly to various wire jackets
- Meets: SAE-AMS-DTL-23053/4
- Operating temp.: -55°C to +125°C
- Min. Shrink temp.: 80°C
- Min. Full recovery temp.: 110°C
- Shrink ratio: 3:1
- RoHS compliant

Approvals

c UL us 125°C VW-1 600V

Technical Properties:

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	>12MPa
Ultimate elongation	ASTM D 2671	>400%
Longitudinal shrinkage	UL 224	0 ± 10%
Eccentricity	ASTM D 2671	<40%
Heat aging Tensile strength Ultimate elongation	158°C, 168 hrs.	 >11 MPa >350%
Flammability	VW-1	Pass
Voltage withstand	ASTM D 2671/AC 2500V, 1 min.	No breakdown
Volume resistance	IEC 93	$>10^{14}\Omega$.cm
Copper stability	UL 224	Pass
Copper corrosion	UL 224	No corrosion

Dimensions:

Size (mm)	As Supplied (mm)		After Recovered (mm)		Length	Spool
	D*(Min)	d*(Max)	w1*(Min)	w2*(Nom)	(m)	(m)
3/1	3.0	1.0	1.0	0.5	1.22	150
4.8/1.5	4.8	1.5	1.0	0.5	1.22	75
6/2	6.0	2.0	1.0	0.5	1.22	75
9/3	9.0	3.0	1.4	0.6	1.22	75
12/4	12.0	4.0	1.6	0.8	1.22	50
19/6	19.0	6.0	2.15	0.8	1.22	25
24/8	24.0	8.0	2.4	1.0	1.22	25
40/13	40.0	13.0	2.4	1.0	1.22	25

D* = Inner diameter as supplied d* = Inner diameter after fully recovered w1* = Total recovered wall thickness
w2* = Recovered wall thickness of adhesive

Ordering Information:

Standard Colours:

- Black

Special Colours:

- Red
- Blue
- White

MWL Medium Wall Tubing With Hot Melting Adhesive

Features:

- Medium wall adhesive coated cross linked polyolefin
- Co-extrusion technology
- Good sealing & shrinking property
- Excellent mechanical performance
- UV resistant
- Operating temp.: -55°C to + 110°C
- Min. Full recovery temp.: 120°C

Technical Properties:

Property	Test Method	Typical Data
Property of Jacket		
Tensile strength	ASTM D 2671	≥14Mpa
Ultimate elongation	ASTM D 2671	≥400%
Heat aging Tensile strength Ultimate elongation	ASTM D 2671/150°C. 168 hrs.	 >12Mpa >300%
Density	ASTM D 792	1.05g/cm^3
Longitudinal shrinkage	UL 224	0 to -10%
Dielectric strength	IEC 243	≥18kV/mm
Volume resistance	IEC 93	≥$10^{13}\Omega$.cm
Copper stability	ASTM D 2671	Pass
Water absorption	ISO62/23°C, 14 Days	<0.15%
Property of Adhesive		
Water absorption	ISO 62	<0.2%
Softening point	ASTM E28	85 ± 5°C
Peel strength (PE)	DIN 30672	4 N/cm
Resistance to fungus and decay	ISO 846	Pass

Dimensions:

Size (mm)	As Supplied (mm)	After Recovered (mm)		Standard Length
	D*(Min)	d*(Max)	w1*(Min)	(mm)
MWL 12/3	12	3	1.5	1220
MWL 16/5	16	5	1.5	1220
MWL 22/6	22	6	2.0	1220
MWL 33/8	33	8	2.0	1220
MWL 40/12	40	12	2.0	1220
MWL 55/16	55	16	2.0	1220
MWL 65/19	65	19	2.5	1220
MWL 75/22	75	22	2.7	1220
MWL 95/25	95	25	2.9	1220
MWL 120/40	120	40	3.3	1220
MWL 140/42	140	42	3.5	1220

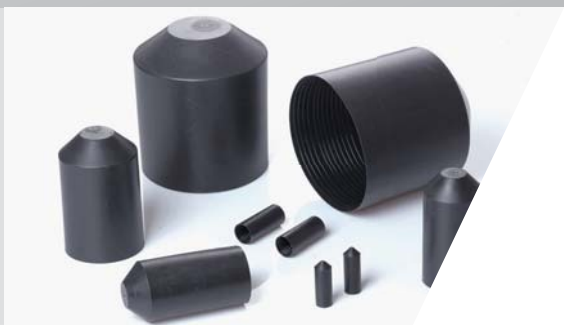
D* = Inner diameter as supplied d* = Inner diameter after fully recovered w1* = Total recovered wall thickness

Ordering Information:

Standard Colours:

Black

HSEC Cable End Caps With Spiral Adhesive Coating



Features:

- Cross linked polyolefin
- Excellent sealing properties
- UV and weather resistance
- Operating temperature: -55°C to + 110°C
- Min. Full recovery temp.: 120°C
- Available with or without adhesive

Technical Properties:

Property	Test Method	Typical Data
Tensile strength	ASTM D 638	>11MPa
Ultimate elongation	ASTM D 638	>400%
Density	ASTM D 792	1.05g/cm^3
Ultimate elongation after aging	150°C, 168 hrs.	>300%
Dielectric strength	IEC243	>15kV/mm
Volume resistance	IEC 93	$10^{14}\Omega$.cm

Dimensions:

Size (mm)	As Supplied (mm) D*(min.)	A*(±10%)	d*(Max.)	After Recovered (mm) L*(±10%)	w*(±10%)
Cable end cap-HSEC, standard length					
HSEC 12/4	12	15	4	40	2.6
HSEC 14/5	14	18	5	45	2.2
HSEC 20/6	20	25	6	55	2.8
HSEC 25/8.5	25	30	8.5	68	2.8
HSEC 35/16	35	35	16	83	3.3
HSEC 40/16	40	35	16	90	3.3
HSEC 55/26	55	50	26	103	3.5
HSEC 75/36	75	55	36	120	4.0
HSEC 100/52	100	70	52	140	4.0
HSEC 120/60	120	70	60	150	4.0
HSEC 145/60	145	70	60	150	4.0
HSEC 160/82	160	70	80	150	4.0

D* = Inner diameter supplied d* = Inner diameter recovered w* = Wall thickness after fully recovered A* = Length of adhesive
L* = Length of end cap

Ordering Information:

Standard Colours:

Black

HMEC Heat Shrink Miniature End Cap

Features:

- Cross linked adhesive lined polyolefin
- Flame retardant
- Co-extrusion technology
- Excellent sealing and insulation properties
- Bonds perfectly to various wire jackets
- Meets: SAE-AMS-DTL-23053/4
- Operating temp.: -55°C to +125°C
- Min. Shrink temp.: 80°C
- Min. Full recovery temp.: 110°C
- Shrink ratio: 3:1
- RoHS compliant

Approvals

RoHS 125°C VW-1 600V

Technical Properties:

Property	Test Method	Typical Data
Operating Temp.	IEC216	-55°C to +125°C
Tensile Strength	ASTM D2671	15Mpa
Ultimate Elongation	ASTM D2671	760%
Longitudinal Shrinkage	UL224	-3%
Eccentricity	ASTM D2671	20%
Thermal Shock	250°C, 4 hrs	No leaking or cracking
Thermal Aging Tensile Strength Ultimate Elongation After Aging	158°C 168 hrs	 14Mpa 650%
Flame Retardance	UL 224 VW-1	Pass

Dimensions:

Size (mm)	As Supplied (mm)			After Recovered (mm)	
	ID*	L1*±10%	L2*±10%	ID*	Wall Thickness
HMEC3/1	3.50-3.80	25	20	1.0	1.0
HMEC4.8/1.5	5.00-5.50	30	25	1.5	1.1
HMEC6/2	6.40-6.90	30	25	2.0	1.2
HMEC9/3	10.0-10.8	35	28	3.0	1.3

ID* = Inside diameter L1* = Overall length of end cap L2* = Inside length of end cap

HSWAS Heat Shrinkable Cable Repair Sleeve

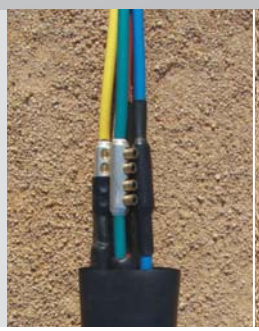
HSWAS is a heat shrinkable wrap around sleeve that is used for repairing damaged cable over sheaths on various types of cables, provides excellent corrosion and abrasion protection. The UV and weather resistance also makes this product ideal for LV cable joint outer protection.

Operating temp.: -40°C to + 65°C

Dimensions:

Size (mm)	As Supplied (mm) D (mm.)	W (Min.)	After Recovered (mm) d (Max.)	w (Min.)	Standard Length L (mm.)
36/10	38	1.5	9	2.4	1000/1500
55/13	57	1.5	13	2.5	1000/1500
85/20	85	1.5	20	3.0	1000/1500
108/27	110	1.5	27	3.0	1000/1500
136/30	138	1.5	30	3.2	1000/1500
180/50	183	1.5	50	3.2	1000/1500

Low Voltage Heat Shrinkable Joints And Terminations



Kit Contents: (typical)

- Core insulating tube
- Outer protective tube
- Abrasive strip
- Cleaning tissue
- Box or plastic bag with installation instructions

Outdoor terminations cores are protected by UV resistant heat shrinkable tubing without adhesive supplied with all outdoor terminations.

Available as complete kits or as components.

Core lengths are subject to installation site and requirements, minimum core lengths 100mm.

Joints and termination kits for cables with concentric neutral or armour already include required hardware.

Earth Kits available as separate kits.

Approvals

DIN EN 50393 VDE 0278-393

Approval documentation is available upon request. Please contact us at:

sales@engsup.com.au

www.engineeringsupplies.com.au

What else is available from **TERMCO**?

Copper Lugs & HD Terminals

All Termco Heavy Duty Copper Tube Lugs & Sheet Terminals are made to the highest possible specifications and are Electro Tinned finished. Only the highest grade Oxygen Free copper is used, with a conductivity of 99.9% by I.A.C.S. Standards.

The Termco range is manufactured to Australian Dimensions, complies with Australian Standard AS/NZ4325.1 and is fully compatible with existing Australian Tooling.

Pre-Insulated & Non-Insulated Compression Terminals

The Termco range of Pre-Insulated and Non-Insulated Compression Terminals has been designed and manufactured under the highest standards to provide terminals that comply with most international codes and standards.

The terminal range, along with the technical specifications has the full endorsed recognition of the Underwriters Laboratory and the Canadian Standards Association.

This includes both the compression and disconnect terminals.

Termco Crimping Tools

The Termco Range of tools is sourced from the highest quality manufacturers and designed for ease of operation as well as ensuring that Termco Tools & Terminals are correctly matched. As the tools are of correct international standard they can be used with confidence on other manufacturer's lugs that have Australian Dimensions.

PVC Electrical Tape

The Termco range of PVC Electrical Insulation is manufactured using the highest quality Polyvinyl Chloride and Adhesive. Termco Electrical Tape ensures the best possible outcome with ease for any project.

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