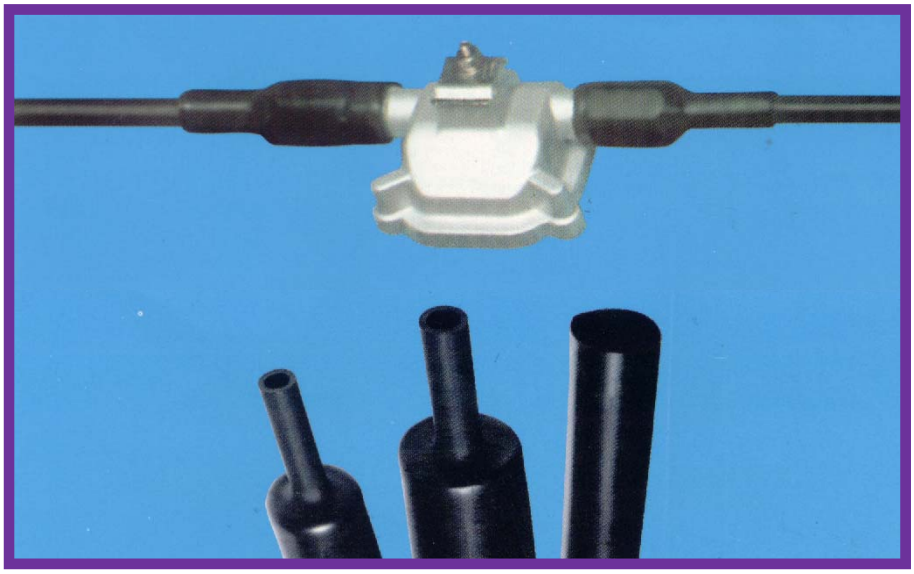
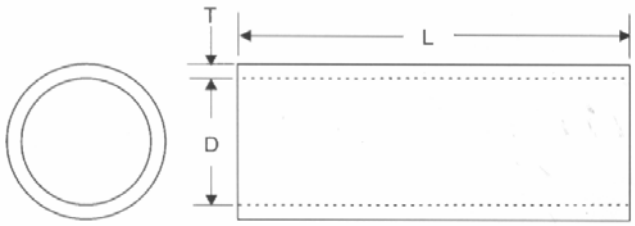
Heat-Shrinkable Tubing TIMSA





- All dimensions are in mm
- Drawing depicts typical dimensions
- E - as supplied
- S - after free recovery
- D - internal diameter without adhesive coating
- L - Length as per requirement

General Features:

Medium wall heat-shrinkable tubing in X-linked polyolefin. Suitable for telecom and cable TV systems. Adhesive Coating.

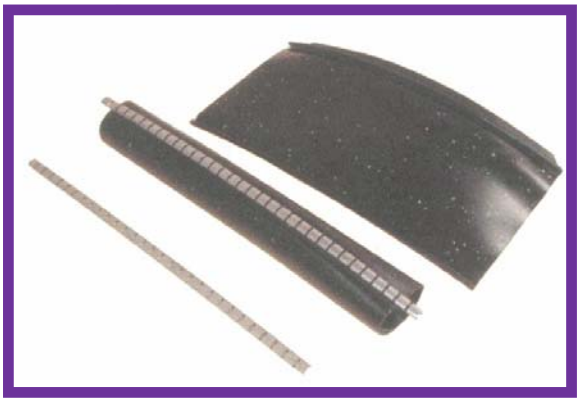
Temperature Indicator paint on the external surface.

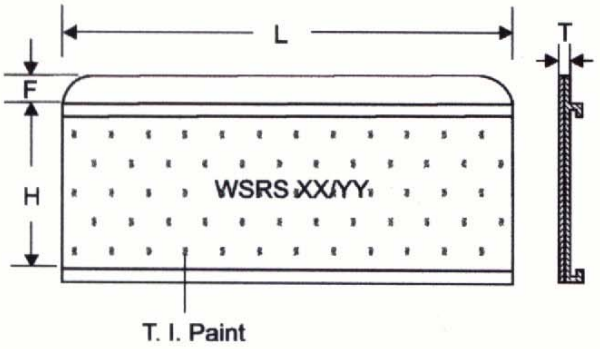
TIMSA Product Dimensions Medium Wall Tubing

Size	Dia D		T
	E	S	S
	Max	Min	± 20%
33/6	33	6	2.5
45/12	45	12	2.7
60/16	60	16	3
70/23	70	23	3
95/30	95	30	3
105/34	105	34	3

FEATURES	RESULTS	STANDARD
THERMIC		
Continuous temperature limits	-55°C +125°C	IEC 216
Shrinking temperature	120°C	IEC 216
Thermal shock	No damage	ASTM D 2671 - 746
Cracking low temperature	≤-55°C	ASTM D 2671
Flamability	No self extinguishing	ASTM D 876
PHISICAL		
Shrinking ratio	3 : 1 ÷ 4 : 1	-
Tensile strength	≥ 10 N / mm²	ISO R 527
Elongation	≥ 350%	ISO R 527
Longitudinal shrinking	≤ 10%	ASTM D 2671
PE peeling strength	> 75 N / 25 mm	DIN 53282
Permeability	≤ 0,1%	UNI ISO 62
ELECTRICAL		
Dielectric strength	≥ 12 kV / mm	ASTM D 149
Volume resistivity	≥ 1 x 10^{12} Ω cm	ASTM D 257
CHEMICAL		
Mould resistance	No growth	ASTM G 21 - D 638

Heat-Shrinkable Wrap Around Sleeve





PRODUCT DIMENSIONS

SIZE	H	F	T
	mm	mm (Min)	mm (Min)
WSRS52/10	175±5	18	0.9
WSRS76/22	260±10	30	0.9
WSRS100/30	355±15	30	0.9
WSRS139/38	355±15	30	0.9
WSRS185/55	355±15	30	0.9
WSRS210/55	355±15	35	0.9

- All dimensions are in mm
- L - Length as per requirement and maximum 1500mm
- T - Total thickness od sleeve with adhesive

Heat Shrinkable Wrap Around Sleeves are mainly used for repairing outer/inner sheath of cables. These sleeves are also used for providing corrosion protection to the metallic parts of the cables that are exposed to polluted environment and for making Telecommunication cable joints.

The Wrap Around Sleeves are made from thermally stabilised cross linked weather resistant polymeric material. The Sleeves are coated internally with Hot Melt Adhesive. The outer surface of the Sleeves have thermocromic paint.

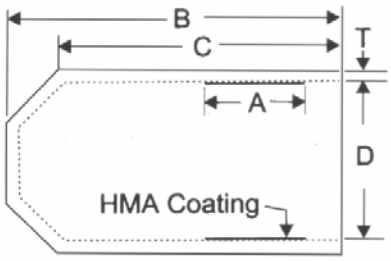
MATERIAL SPECIFICATION — Product Colour - Black

Characteristics	Value	Test Method
Physical Properties		
Tensile strength	17.5 N/sqmm (min)	ISO R-527
Ultimate elongation	300% (min)	ISO R-527
Water adsorption in 24 hrs	0.1% (max)	ASTM D-570
Torchability	No split	TE 201 AOL
ESCR 48 hrs at 50°C	No cracks	ASTM D-1693
Thermal Ageing Tests (120°C for 500hrs)		
Tensile strength	15 N/sqmm (min)	ISO R-527
Ultimate elongation	200% (min)	ISO R-527
Electrical Properties		
Dielectric strength	12 kV/mm (min)	ASTM D-149
Chemical Properties		
Chemical resistance immersion in following liquids 0.1 N sol. of Na SO, NaCl, NaOH(40%), H'SO(3%), for 24 hrs at room temp.	Good (No visual defects)	ISO 175
Tensile strength	15 N/sqmm (min)	ISO - 175
Ultimate elongation	200% (min)	ISO - 175
Temperature indicating paint colour conversion		
150°C for 30 minute	No change	Visual
250°C for 5 minute	Colour change	Visual

Heat Shrinkable Cable End Sealing Cap

PRODUCT DIMENSIONS

SIZE	Dia D		B	C	A	LC	T
	E	S	E	E	E	S	S
	Min	Max	Min	Min	Min	%	±20%
EC001	12	4.5	50	45	15	±10	1.2
EC101	20	9	65	60	20	±10	3.0
EC101L	20	9	125	110	20	±10	3.0
EC201	35	16	90	80	30	±10	3.0
EC201L	35	16	150	140	30	±10	3.0
EC301	55	25	110	88	35	±10	4.0
EC301L	55	25	165	150	50	±10	4.0
EC401	75	34	120	105	50	±10	4.2
EC401L	75	34	200	175	70	±10	4.2
EC501	100	59	130	110	70	±10	4.2
EC501L	100	59	225	190	70	±10	4.2
EC601	115	59	140	110	70	±10	4.2
EC601(OE)	120	59	140	110	70	±10	4.2
EC701	145	71	155	120	70	±10	4.6



- All dimensions are in mm
- Drawing depicts typical parts
- E - as supplied
- S - after free recovery
- D, d - internal diameter without adhesive coating
- LC - Longitudianal change

Heat Shrinkable Cable End Caps are used to seal the ends of all type of cables and protect from ingress of water/moisture. The Caps are made from thermally stabilised cross linked polymeric material.

The Caps are internally coated with hot melt adhesive (HMA). We can also supply caps with valves.

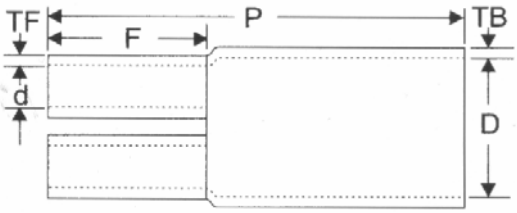
MATERIAL SPECIFICATION

Product Colour - Black

Characteristics	Value	Test Method
Physical Properties		
Specific gravity	1.1±0.2	ASTM D-1505
Water adsorption	1% (max)	ASTM D-570 / ISO 62
Tensile strength	10 N/sqmm (min)	ASTM D-412 / ISO 37
Ultimate elongation	300% (min)	ASTM D-412 / ISO 37
Hardness	45±3 shore D	ASTM D-2240
Thermal Ageing Tests (120°C for 500hrs)		
Tensile strength	8 N/sqmm (min)	ASTM D-412 / ISO 37
Ultimate elongation	200% (min)	ASTM D-412 / ISO 37
Electrical Properties		
Volume resistivity	$1x10^{12}$ Ohm-cm (min)	ASTM D-257 / IEC 93
Dielectric strength	10kV/mm (min)	ASTM D-149 / IEC 243
Dielectric constant	5 (max)	ASTM D-150 / IEC 250

Two-Way LV Cable Breakout

- All dimensions are in mm
- Drawing depicts typical dimensions
- E - as supplied
- S - after free recovery
- D, d - internal diameter without adhesive coating



PRODUCT DIMENSIONS

SIZE	Dia D		Dia d		P		F		TB	TF
	E	S	E	S	E	S	E	S	S	S
	Min	Max	Min	Max	Min	Max	Min	Max	±20%	±20%
LVC2BR0410	30	11	12	5	70	95	18	28	1.6	1.6

Heat Shrinkable 2-way Cable Breakouts provide environmental seal to the crutch of 2 core Plastic and Paper insulated cables rated up to 1.1kV. The Breakouts are made from thermally stabilised cross linked ploymeric material.

The Breakouts are internally coated with hot melt adhesive.

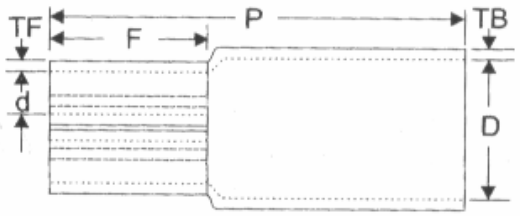
MATERIAL SPECIFICATION

Product Colour - Black

Characteristics	Value	Test Method
Physical Properties		
Specific gravity	1.1±0.2	ASTM D-1505
Water adsorption	1% (max)	ASTM D-570 /ISO 62
Tensile strength	10 N/sqmm (min)	ASTM D-412 /ISO 37
Ultimate elongation	300% (min)	ASTM D-412 /ISO 37
Hardness	45±3 shore D	ASTM D-2240
Thermal Ageing Tests (120°C for 500hrs)		
Tensile strength	8 N/sqmm (min)	ASTM D-412 /ISO 37
Ultimate elongation	200% (min)	ASTM D-412 /ISO 37
Electrical Properties		
Volume resistivity	$1x10^{12}$ Ohm-cm (min)	ASTM D-257 /IEC 93
Dielectric strength	10kV/mm (min)	ASTM D-149 /IEC 243
Dielectric constant	5 (max)	ASTM D-150 /IEC 250

Three-Way LV Cable Breakout

- All dimensions are in mm
- Drawing depicts typical dimensions
- E - as supplied
- S - after free recovery
- D, d - internal diameter without adhesive coating



PRODUCT DIMENSIONS

SIZE	Dia D		Dia d		P		F		TB	TF
	E	S	E	S	E	S	E	S	S	S
	Min	Max	Min	Max	Min	Max	Min	Max	±20%	±20%
LVC3BR0413	37	13	14	4	85	117	18	31	2.2	1.4
LVC3BR0820	50	21	22	9	135	170	31	50	3.5	2.2
LVC3BR1330	75	31	32	14	160	210	40	60	3.5	2.2
LVC3BR2145	110	46	52	22	160	210	40	60	3.8	2.5
LVC3BR2755	135	56	64	28	230	270	40	65	3.8	2.8

Heat Shrinkable 3-way Cable Breakouts provide environmental seal to the crutch of 3 core Plastic and Paper insulated cables rated up to 1.1kV. The Breakouts are made from thermally stabilised cross linked polymeric material.

The Breakouts are internally coated with mastic / hot melt adhesive.

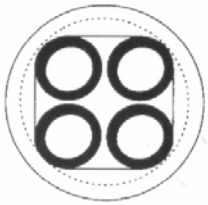
MATERIAL SPECIFICATION

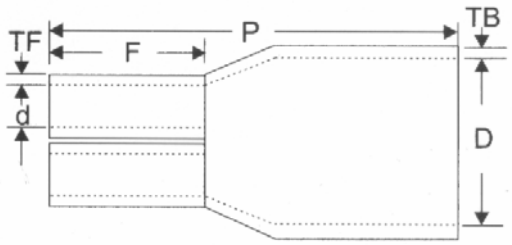
Product Colour - Black

Characteristics	Value	Test Method
Physical Properties		
Specific gravity	1.1±0.2	ASTM D-1505
Water adsorption	1% (max)	ASTM D-570 /ISO 62
Tensile strength	10 N/sqmm (min)	ASTM D-412 /ISO 37
Ultimate elongation	300% (min)	ASTM D-412 /ISO 37
Hardness	45±3 shore D	ASTM D-2240
Thermal Ageing Tests (120°C for 500hrs)		
Tensile strength	8 N/sqmm (min)	ASTM D-412 /ISO 37
Ultimate elongation	200% (min)	ASTM D-412 /ISO 37
Electrical Properties		
Volume resistivity	$1x10^{12}$ Ohm-cm (min)	ASTM D-257 /IEC 93
Dielectric strength	10kV/mm (min)	ASTM D-149 /IEC 243
Dielectric constant	5 (max)	ASTM D-150 /IEC 250

Four-Way LV Cable Breakout

- All dimensions are in mm
- Drawing depicts typical dimensions
- E - as supplied
- S - after free recovery
- D, d - internal diameter without adhesive coating





PRODUCT DIMENSIONS

SIZE	Dia D		Dia d		P		F		TB	TF
	E	S	E	S	E	S	E	S	S	S
	Min	Max	Min	Max	Min	Max	Min	Max	±20%	±20%
LVC4BR0415	35	16	12	5	85	105	14	20	2.3	1.4
LVC4BR0821	44	20	20	8	140	175	30	46	3.5	1.8
LVC4BR0925	60	26	22	10	170	220	30	46	3.6	2.5
LVC4BR1334	90	35	34	14	170	220	30	48	3.3	2.5
LVC4BR2454	120	55	50	25	200	250	50	65	4.2	3.3

Heat Shrinkable 4-way Cable Breakouts provide environmental seal to the crutch of 3 / and 4 core Plastic and Paper insulated cables rated up to 1.1kV. The Breakouts are made from thermally stabilised cross linked polymeric material.

The Breakouts are internally coated with mastic / hot melt adhesive.

MATERIAL SPECIFICATION

Product Colour - Black

Characteristics	Value	Test Method
Physical Properties		
Specific gravity	1.1±0.2	ASTM D-1505
Water adsorption	1% (max)	ASTM D-570 /ISO 62
Tensile strength	10 N/sqmm (min)	ASTM D-412 /ISO 37
Ultimate elongation	300% (min)	ASTM D-412 /ISO 37
Hardness	45±3 shore D	ASTM D-2240
Thermal Ageing Tests (120°C for 500hrs)		
Tensile strength	8 N/sqmm (min)	ASTM D-412 /ISO 37
Ultimate elongation	200% (min)	ASTM D-412 /ISO 37
Electrical Properties		
Volume resistivity	$1x10^{12}$ Ohm-cm (min)	ASTM D-257 /IEC 93
Dielectric strength	10kV/mm (min)	ASTM D-149 /IEC 243
Dielectric constant	5 (max)	ASTM D-150 /IEC 250

Kitting Services

Rider Comms Ltd provide extensive kitting facilities our capabilities range from:-

- **Heat shrinkable products and associated accessories.**
- **Fibre Optic.**
- **Electrical.**
- **Fasteners.**
- **Tooling.**
- **Sealant.**
- **Cleaning.**
- **Mechanical.**

Customized kits can be supplied to specific customer requirements.

Kit items can either be a customers propriety product or independently sourced directly by Rider Comms Ltd.