AXIS™

TESTED PRODUCTS
EFFICIENT SERVICE
TRUSTED BRAND

Product Brochure

Heat Shrinkable Tape, Tube and Terminations Kits

AXIS ELECTRICAL COMPONENTS (I) P. LTD.

Our Vision

To be a leading global enterprise providing innovative & value based solutions in the Electrical & Energy Sector.

Our Mission

AXIS is committed to deliver excellence and superior value to our customers, shareholders, employees and society at large.
Our mission is driven through the 4 pillars of:

1. **Customer Centricity:** To become the "Supplier of Choice", delivering products and services and creating value for our customers.

2. **People Centricity:** To be the "Employer of Choice", nurturing and developing talent, fostering teamwork & capability with a high sense of pace, passion and pride driven by value & culture.

3. **Community Centricity:** To be recognized as a responsible corporate citizen through facilities, being legally compliant and driven by a strong corporate governance.

4. **Business & Technology Centricity:** To drive innovative, efficient & effective systems, processes and delivery backbone backed by technology for a sustainable and scalable business growth and value.

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An ISO 9001: 2015 Company

Company Profile

Leading Manufacturer & Exporter

Axis is the leading Indian Manufacturer & Exporter of a wide range of Electrical Components used in Electrical Installations and in the Equipment Building industry. Our main customer base consist of Distributors/Wholesalers of Electrical Products, Electrical Contractors & Installers, Equipment Manufacturers, Maintenance Companies and Government Authorities.

Exports to more than 80 Countries Worldwide

Over the years, Axis has supplied high quality and tested products to thousands of customers in over 80 countries. As a result, the Axis brand has become synonymous with Quality.

International Certifications

Axis invests heavily in continuous improvements in its products and manufacturing processes. This allows Axis to always be ahead of the curve through certifications and approvals from around the world. Products manufactured by Axis follow widely accepted international such as BS, DIN, UL, IEC, NFC, AS/NZ & Indian Standard (IS). CRISIL India, an S&P subsidiary, rated Axis as having the highest performance capabilities and strong financial strength.

Constant Improvement

Axis's dual focus on foreseeing customer requirements and looking at the future of the industry, translates to a continuous desire to evolve and upgrade our product offerings.

Quality Management

Our goal is to provide each customer with products, systems and services that meet the highest standards of quality. To assure quality management, Axis has achieved an ISO 9001 Certification.

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AXIS™
An ISO 9001: 2015 Company

Heat Shrinkable Joints

Straight Through Joint

Engineered for Secure Connection

- Power Transmission and Distribution
- Industrial Installations
- Oil & Gas
- Railways
- Construction
- Telecommunications

CERTIFIED
IEC 60502-4

Heat Shrinkable Straight Through Joints

Single & Triple Core (11-33 kV)

Material: Crosslinked Polyolefins

Features:

Electrical Stress Control

Stress control tubes, along with stress relief mastic, are used to smooth the electrical field at cable screen ends.

Insulation and Screen

Heat shrink insulation tubes ensure consistent thickness, matching or exceeding the cable's insulation. A dual-layer semi-conductive/insulation tube is also used to create a void-free interface between insulation and screen.

Metallic Shielding

Copper mesh is wrapped around the joint area to restore the metallic screen, with options for either soldered or solderless earth connections to maintain screen continuity.

Outer Sealing and Protection

An adhesive-coated heat shrink tube provides mechanical protection and chemical resistance, similar to the cable's oversheath.

Single Core Straight Through Joints		
Nominal voltage U	Cross section (mm2)	L Dimensions (mm)
11kV	50-95	1000
	120-185	1000
	240-300	1000
	400-500	1000
	630	1000
22kV	35-50	1000
	70-120	1000
	150-240	1000
	300-400	1200
	500-630	1200
	800-1000	1200
	1200	1200
33kV	35-50	1400
	70-120	1400
	150-240	1400
	300-400	1400
	500-630	1400
	800-1000	1400
	1200	1400

Triple Core Straight Through Joints		
Nominal voltage U	Cross section (mm2)	L Dimensions (mm)
11kV	50-95	1800
	120-185	1800
	240-300	1800
	400-500	1800
	630	1800
22kV	35-50	1800
	70-120	1800
	150-240	1800
	300-400	2600
	500-630	2600
33kV	35-50	2700
	70-120	2700
	150-240	2700
	300-400	2700
	500-630	2700

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Heat Shrink Termination Kit

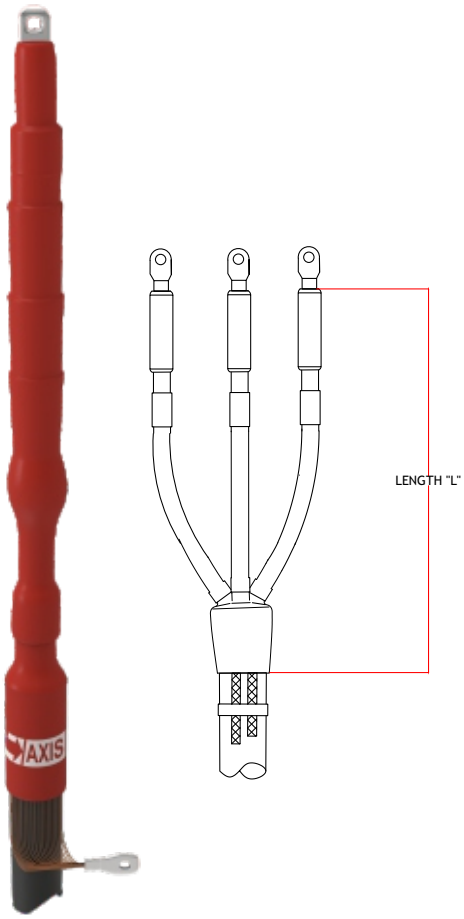
Termination Kits
Engineered for Easy Application

- Power Transmission and Distribution
- Industrial Installations
- Renewable Energy Systems
- Underground and Overhead Installations
- Marine and Offshore Applications
- Telecommunications

CERTIFIED
IEC 60502-4

Heat Shrinkable Indoor Termination Kits

Single Core (11-33 KV)



Material: Crosslinked Polyolefins

Features:

1.Electrical Stress Control

Yellow stress relief mastic is applied around the cable screen cut. The stress control tube, combined with the mastic, smooths the electrical field at the cable end.

2. Excellent Anti-tracking Properties

Anti-tracking insulation tubes and rain sheds offer exceptional resistance to tracking and erosion, protecting terminations in severe service conditions.

3. Additional Creepage

Anti-tracking rain sheds increase the surface creepage distance.

4. Moisture Sealing

Hot-melt adhesive inside the sealing tube and anti-tracking insulation tube ensures durable sealing. For 3-core cables, an adhesive-coated breakout seals and protects the crutch area, cores, and oversheath end.

5. Earth Connection

Both soldered and solderless earth connections are available to link the metal screen or armor to ground. For wire-screen cables, copper wires are embedded in the sealing mastic to prevent corrosion and moisture ingress.

Single Core Indoor Termination Kits				
Nominal voltage U	Cross section (mm2)	Dimensions (mm)		No. of Rain Sheds
		L	D	
11kV	50-95 120-185 240-300 400-500 630	800	–	0
22kV	35-50 70-120 150-240 300-400 500-630 800-1000 1200	800	105 105 105 140 140 140 140	2
33kv	35-50 70-120 150-240 300-400 500-630 800-1000 1200	800	105 105 140 140 140 140 140	4

Heat Shrinkable Outdoor Termination Kits

Single Core (11-33 KV)

Material: Crosslinked Polyolefins

Features:

1.Electrical Stress Control

Yellow stress relief mastic is applied around the cable screen cut. The stress control tube, combined with the mastic, smooths the electrical field at the cable end.

2. Excellent Anti-tracking Properties

Anti-tracking insulation tubes and rain sheds offer exceptional resistance to tracking and erosion, protecting terminations in severe service conditions.

3. Additional Creepage

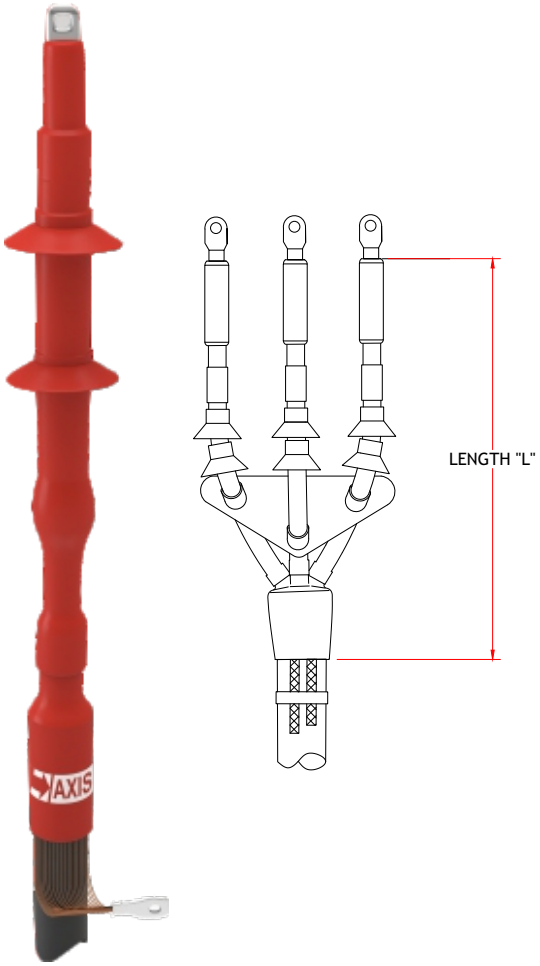
Anti-tracking rain sheds increase the surface creepage distance.

4. Moisture Sealing

Hot-melt adhesive inside the sealing tube and anti-tracking insulation tube ensures durable sealing. For 3-core cables, an adhesive-coated breakout seals and protects the crutch area, cores, and oversheath end.

5. Earth Connection

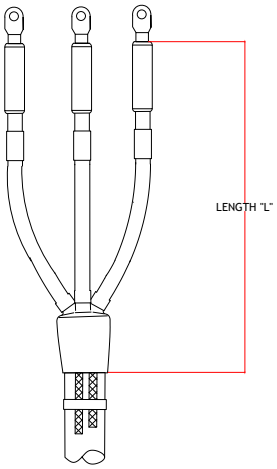
Both soldered and solderless earth connections are available to link the metal screen or armor to ground. For wire-screen cables, copper wires are embedded in the sealing mastic to prevent corrosion and moisture ingress.



Outdoor Single Core Termination Kits				
Nominal voltage U	Cross section (mm2)	Dimensions (mm)		No. of Rain Sheds
		L	D	
11kV	50-95 120-185 240-300 400-500 630	800	105 105 105 140 140	3
22kV	35-50 70-120 150-240 300-400 500-630 800-1000 1200	800	105 105 105 140 140 140 140	4
33kV	35-50 70-120 150-240 300-400 500-630 800-1000 1200	800	105 105 140 140 140 140 140	6

Heat Shrinkable Indoor Termination Kits

Triple Core (11-33 KV)



Material: Crosslinked Polyolefins

Features:

1.Electrical Stress Control

Yellow stress relief mastic is applied around the cable screen cut. The stress control tube, combined with the mastic, smooths the electrical field at the cable end.

2. Excellent Anti-tracking Properties

Anti-tracking insulation tubes and rain sheds offer exceptional resistance to tracking and erosion, protecting terminations in severe service conditions.

3. Additional Creepage

Anti-tracking rain sheds increase the surface creepage distance.

4. Moisture Sealing

Hot-melt adhesive inside the sealing tube and anti-tracking insulation tube ensures durable sealing. For 3-core cables, an adhesive-coated breakout seals and protects the crutch area, cores, and oversheath end.

5. Earth Connection

Both soldered and solderless earth connections are available to link the metal screen or armor to ground. For wire-screen cables, copper wires are embedded in the sealing mastic to prevent corrosion and moisture ingress.

Three Core Indoor Termination Kits				
Nominal voltage U	Cross section (mm2)	Dimensions (mm)		No. of Rain Sheds
		L	D	
11kV	50-95 120-185 240-300 400-500 630	750	–	0
22kV	35-50 70-120 150-240 300-400 500-630	900	105 105 105 140 140	6
33kV	35-50 70-120 150-240 300-400 500-630	1100	105 105 140 140 140	12

Heat Shrinkable Outdoor Termination Kits

Triple Core (11-33 KV)

Material: Crosslinked Polyolefins

Features:

1.Electrical Stress Control

Yellow stress relief mastic is applied around the cable screen cut. The stress control tube, combined with the mastic, smooths the electrical field at the cable end.

2. Excellent Anti-tracking Properties

Anti-tracking insulation tubes and rain sheds offer exceptional resistance to tracking and erosion, protecting terminations in severe service conditions.

3. Additional Creepage

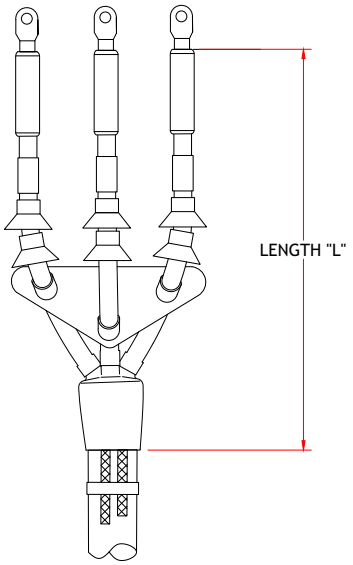
Anti-tracking rain sheds increase the surface creepage distance.

4. Moisture Sealing

Hot-melt adhesive inside the sealing tube and anti-tracking insulation tube ensures durable sealing. For 3-core cables, an adhesive-coated breakout seals and protects the crutch area, cores, and oversheath end.

5. Earth Connection

Both soldered and solderless earth connections are available to link the metal screen or armor to ground. For wire-screen cables, copper wires are embedded in the sealing mastic to prevent corrosion and moisture ingress.



Outdoor Triple Core Termination Kits				
Nominal voltage U	Cross section (mm2)	Dimensions (mm)		No. of Rain Sheds
		L	D	
11kV	50-95 120-185 240-300 400-500 630	900	105 105 105 105 105	6
22kV	35-50 70-120 150-240 300-400 500-630	900	105 105 105 140 140	12
33kV	35-50 70-120 150-240 300-400 500-630	1100	105 105 140 140 140	18

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Heat Shrinkable Tubes

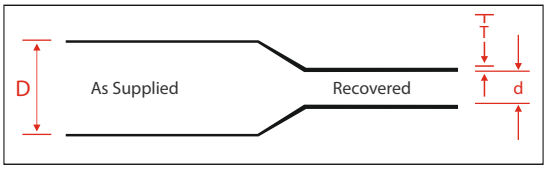
Insulation & Protection

- Automotive
- Aerospace
- Renewable Energy
- Medical
- Telecommunications

CERTIFIED
IEC 60502-4

Medium Wall Heat Shrink Tube

Low Voltage



Material: Crosslinked Polyolefins

Features:

- 3:1 shrink ratio
- Seal and protect cable splice and terminations
- Rugged mechanical protection
- Complete moisture sealing
- Strain relief for delicate wire connections
- High resistance to impact and abrasion
- Thermoplastic adhesive liner for complete environmental protection and insulation
- Continuous operating temperature:-45℃ to 125℃
- Fully shrink temperature: 125℃

Application: LV Cable Insulation based medium wall thickness (adhesive lined) Heat Shrinkable Tubing (LV) upto 3.3 KV

Adhesive Data Sheet		
Property	Test Method	Standard
Water Absorption	ASTM D570	＜0.2%
Sofening Point (℃)	ASTM E28	95±5
Strength of peeling(PE)	ASTM D 1000	120N/25mm
Strength of peeling(AL)	ASTM D 1000	80N/25mm

Technical Data Sheet			
Property	Test Method	Standard	Typical Performance
Tensile Strength(MPa)	ASTM D2671	≥12	12.58
Elongation(%)	ASTM D2671	≥300	450.87
Tensile Strength after aging (MPa)	Ul 224 158℃X168hr	≥8.4	11.67
Elongation after aging(%)	Ul 224 158℃X168hr	≥200	391.36
Dieletric strength(kV/mm)	IEC 60243	≥15	21.37
Volume resistivity(Ω.cm)	IEC 60093	≥1X10^{14}	2.48X10^{14}

Medium Wall Heat Shrink Tube

Low Voltage

Selection Chart						
Size (mm)	Expanded	After Recovery				Standard Package
	Inner Diameter Min(mm)	Inner Diameter Max(mm)	Jacket Thickness (mm)	Adhesive Thickness (mm)	Total Wall Thickness (mm)	m/pc
6.0/2.0	6	2	1.40 ±0.20	0.45 ±0.15	1.85 ±0.30	1.22
8.0/2.0	8	2	1.40 ±0.20	0.45 ±0.15	1.85 ±0.30	1.22
10.2/3.0	10.2	3	1.40 ±0.20	0.50 ±0.15	1.90 ±0.30	1.22
12.0/3.0	12	3	1.40 ±0.20	0.50 ±0.15	1.90 ±0.30	1.22
16.0/5.0	16	5	1.50 ±0.20	0.55 ±0.20	2.15 ±0.35	1.22
19.1/5.6	19.1	5.6	1.80 ±0.20	0.60 ±0.20	2.40 ±0.40	1.22
22.0/6.0	22	6	2.00 ±0.30	0.60 ±0.20	2.60 ±0.40	1.22
25.0/8.0	25	8	2.00 ±0.30	0.65 ±0.20	2.70 ±0.40	1.22
28.0/6.0	28	6	2.40 ±0.30	0.95 ±0.25	3.30 ±0.45	1.22
33.0/8.0	33	8	2.50 ±0.30	0.80 ±0.25	3.30 ±0.45	1.22
38.1/12.0	38.1	12	2.40 ±0.30	0.80 ±0.25	3.30 ±0.45	1.22
43.2/12.7	43.2	12.7	2.40 ±0.30	0.80 ±0.25	3.30 ±0.45	1.22
55.0/16.0	55	16	2.40 ±0.30	0.80 ±0.25	3.30 ±0.45	1.22
65.0/19.0	65	19	2.50 ±0.30	0.80 ±0.25	3.30 ±0.45	1.22
75.0/22.0	75	22	2.90 ±0.30	0.80 ±0.25	3.70 ±0.50	1.22
85.0/25.0	85	25	2.90 ±0.30	0.80 ±0.25	3.70 ±0.50	1.22
95.0/30.0	95	30	3.00 ±0.30	0.80 ±0.25	3.70 ±0.50	1.22
115.0/34.0	115	34	3.00 ±0.30	0.80 ±0.25	3.70 ±0.50	1.22
140.0/42.0	140	42	3.00 ±0.30	0.80 ±0.25	3.70 ±0.50	1.22
160.0/50.0	160	50	3.10 ±0.30	0.80 ±0.25	3.70 ±0.50	1
180.0/65.0	180	65	3.10 ±0.30	0.80 ±0.25	3.70 ±0.50	1
200.0/69.0	200	69	3.10 ±0.30	0.80 ±0.25	3.70 ±0.50	1
230.0/78.0	230	78	3.10 ±0.30	0.80 ±0.25	3.70 ±0.50	1

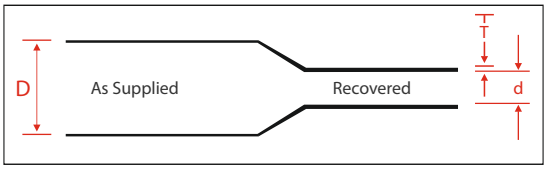
Heavy Wall Heat Shrink Tube

Medium Voltage

Materials: Crosslinked Polyolefins

Features:

- 3 : 1 shrink ratio, adhesive lining
- High impact, abrasion, corrosion and chemical resistance
- Thermoplastic adhesive liner provides complete environmental protection and installation
- Continuous operating temperature: -45℃ to 110℃
- Fully shrink temperature: 125℃



Adhesive Data Sheet		
Property	Test Method	Standard
Water Absorption	ASTM D570	<0.2%
Sofening Point (℃)	ASTM E28	95±5
Strength of peeling(PE)	ASTM D 1000	120N/25mm
Strength of peeling(AL)	ASTM D 1000	80N/25mm

Technical Data Sheet			
Property	Test Method	Standard	Typical Performance
Tensile Strength(MPa)	ASTM D2671	≥12	12.58
Elongation(%)	ASTM D2671	≥300	450.87
Tensile Strength after aging (MPa)	Ul 224 158℃X168hr	≥8.4	11.67
Elongation after aging(%)	Ul 224 158℃X168hr	≥200	391.36
Dieletric strength(kV/mm)	IEC 60243	≥15	21.37
Volume resistivity(Ω.cm)	IEC 60093	≥1X10^{14}	2.48X10^{14}

Heavy Wall Heat Shrink Tube

Medium Voltage

Selection Chart						
Size (mm)	Expanded	After Recovery				Standard Package
	Inner Diameter Min(mm)	Inner Diameter Max(mm)	Jacket Thickness (mm)	Adhesive Thickness (mm)	Total Wall Thickness (mm)	m/pc
8.0/2.0	8	2	1.80±0.30	0.55±0.20	2.35±0.35	1.22
9.0/3.0	9	3	2.00±0.30	0.55±0.20	2.55±0.40	1.22
13.0/4.0	13	4	2.30±0.30	0.55±0.20	2.85±0.40	1.22
16.0/5.0	16	5	2.30±0.30	0.60±0.20	2.90±0.50	1.22
22.0/6.0	22	6	2.50±0.40	0.60±0.25	3.10±0.50	1.22
28.0/6.0	28	6	2.70±0.40	0.70±0.25	3.40±0.50	1.22
33.0/8.0	33	8	2.80±0.40	0.80±0.25	3.60±0.60	1.22
38.1/12.0	38.1	12	3.10±0.50	0.80±0.25	3.90±0.60	1.22
43.2/12.0	43.2	12	3.50±0.50	0.80±0.25	4.30±0.70	1.22
55.0/16.0	55	16	3.60±0.50	0.80±0.25	4.40±0.70	1.22
65.0/19.0	65	19	3.60±0.50	0.80±0.25	4.40±0.70	1.22
75.0/22.0	75	22	3.60±0.50	0.80±0.25	4.40±0.70	1.22
85.0/25.0	85	25	3.60±0.50	0.80±0.25	4.40±0.70	1.22
95.0/30.0	95	30	3.60±0.50	0.80±0.25	4.40±0.70	1.22
105.0/30.0	105	30	3.80±0.60	0.80±0.25	4.60±0.70	1.22
120.0/39.0	120	39	3.80±0.60	0.80±0.25	4.60±0.70	1.22
130.0/40.0	130	40	3.80±0.60	0.80±0.25	4.60±0.70	1.22
140.0/42.0	140	42	3.80±0.60	0.80±0.25	4.60±0.70	1.22
160.0/50.0	160	50	3.80±0.60	0.80±0.25	4.60±0.70	1
180.0/60.0	180	60	3.80±0.60	0.80±0.25	4.60±0.70	1
200.0/69.0	200	69	3.80±0.60	0.80±0.25	4.60±0.70	1

Anti-tracking Heat Shrink Tube

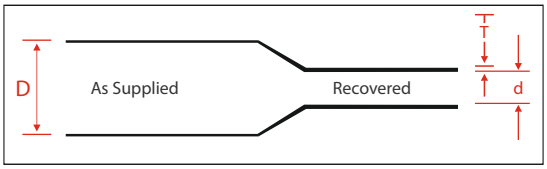
Low Voltage & Medium Voltage

Material: Manufactured using crosslinked radiation crosslinked polyolefins

Application: Used in low & medium voltage heat shrink termination and jointing kits for protection against accidental flashover

Features:

- Adhesive coated at inner layer, 3:1 shrink ratio
- Full recovery temp- 130 °C
- Excellent erosion resistance
- Anti-tracking performance
- Good UV & weather resistance
- Halogen free -flame retardant



Description: Tubes used for insulation and anti-tracking purposes

Technical Data sheet		
Property	Test Method	Standard Value
Tensile Strength	ASTM-D-638	≥8MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength Variation After Heat Aging (130℃x168h)	ASTM-D-5510	≤±30%
Elongation at Break Variation After Heat Aging (130℃x168h)	ASTM-D-5510	≤±30%
Volume Resistivity	IEC 60093	≥1x10^{14}Ω.cm
Dielectric Strength	IEC 60243	≥20kV/mm
Tracking Resistance	IEC 60587	1A 3.5
Dielectric Constant	IEC 60250	≤5
Heat Shock	160℃ · 4h	No Crack
Water Absorption (23±2)℃ 24h	ISO 62	≤0.1%
Hardness (Shore A)	ISO 868	≥80
Brittle Temperature	ISO 974	-40℃

Anti-tracking Heat Shrink Tube

Low Voltage & Medium Voltage

Selection chart					
As Supplied/mm		After Recovered/mm		Standard Cut Length /mm	Standard Continuous Length (m/roll)
Inner Diameter Min	Wall Thickness (±0.3)	Inner Diameter Max	Wall Thickness (±0.3)		
30	1	12	2.2	600-1200	25
35	1	14	2.3	600-1200	25
40	1	17	2.3	600-1200	25
50	1	22	2.5	600-1200	25
35	1.2	13	3	600-1200	25
40	1.2	15	3	600-1200	25
50	1.1	19	3	600-1200	25
55	1.4	24	3.2	600-1200	15
60	1.4	26	3.2	600-1200	15
70	1.4	29	3.2	600-1200	15
75	1.5	35	3.2	600-1200	15
80	1.4	36	3.2	600-1200	15
90	1.6	41	3.5	600-1200	15
100	1.5	45	3.5	600-1200	15

Stress Controlled Heat Shrink Tube

Low Voltage & Medium Voltage

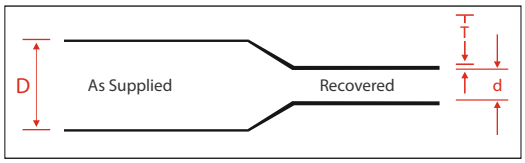
Material: Prepared using crosslinked polyolefins

Application: To control electrical stresses present around semiconduction layer end for medium volatge termination and joints

Features:

- Colour : Black
- Working Temperature: -40 to 100 °C
- Full recovery Temperature: 130 °C

Description: The stress controlled tubing manufactured with specific chemical formulation to get relief from high electrical stresses present in heat shrink termination and joints



Technical Data Sheet		
Property	Test Method	Standard Value
Tensile Strength	ASTM-D-638	≥10MPa
Elongation at Break	ASTM-D-638	≥350%
Tensile Strength Variation After Heat Aging (130°Cx168h)	ASTM-D-5510	≤±20%
Elongation at Break Variation After Heat Aging (130°Cx168h)	ASTM-D-5510	≤±20%
Volume Resistivity	IEC 60093	≥1x10^{10}Ω.cm
Dielectric Constant	IEC 60250	≥15
Hardness (Shore A)	ISO 868	≥80
Longitudinal Shrinkage	ASTM-D-2671	≤5%
Eccentricity	ASTM-D-2671	≤30%

Stress Controlled Heat Shrink Tube

Low Voltage & Medium Voltage

Selection chart					
As Supplied/mm		After Recovered/mm		Standard Cut Length /mm	Standard Continuous Length (m/roll)
Inner Diameter Min	Wall Thickness (±0.3)	Inner Diameter Max	Wall Thickness (±0.3)		
30	0.8	11	2	100-1200	25
35	0.8	14	2	100-1200	25
40	0.8	17	2	100-1200	25
45	0.8	20	2	100-1200	25
50	1.2	22	2.6	100-1200	25
55	1.4	24	3.3	100-1200	15
60	1.3	29	3.3	100-1200	15
70	1.3	29	3.3	100-1200	15
80	1.2	29	3.3	100-1200	15
95	1.4	42	3.6	100-1200	15
100	1.3	43	3.6	100-1200	15
120	1.1	45	3.6	100-1200	15

Flexible, Thick Adhesive-Lined Dual Wall Heat Shrink Tubing

Material: Crosslinked Polyolefins

Application: Used to protect bundles and wires against water and metal tubes

Features:

- Thick adhesive liner bonding to a wide variety of plastics,rubber and metals forms an effective barrier against fluids and moisture
- Flexible, Shrink quickly
- Continuous operating temperature: -45℃ to125℃
- Min shrink temperature:110℃
- Shrink ratio: 3:1

Technical Data			
Property	Test Method	Standard	Typical Performance
Tensile strength(Mpa)	ASTM D2671	≥ 10.4	13.85
Elongation(%)	ASTM D2671	≥ 200	454.62
Tensile strength after aging(Mpa)	UL 224 158 ℃ X 168hr	≥ 7.3	12.36
Elongation after aging (%)	UL 224 158 ℃ X 168hr	≥ 100	392.54
Dielectric strength(kV/mm)	IEC 60243	≥ 15	19.17
Volume resistivity(Ω.cm)	IEC 60093	≥ 1 X 10^{14}	1.98 X 10^{14}

Adhesive Data Sheet		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.2%
Softening Point(℃)	ASTM E28	95±5
Strength of pearing (PE)	ASTM D 1000	120N/25mm
Strength of pearing (AL)	ASTM D 1000	80N/25mm

Selection Chart						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
1/ 8	3.2	3.2	1	0.90±0.30	0.45±0.20	200
3/16	4.8	4.8	1.6	1.20±0.30	0.55±0.20	100
1/ 4	6.4	6.4	2.2	1.25±0.30	0.55±0.20	100
5/16	7.9	7.9	2.7	1.35±0.30	0.65±0.20	100
3 /8	9.5	9.5	3.2	1.35±0.30	0.65±0.20	50
1 /2	12.7	12.7	4.2	1.55±0.40	0.75±0.20	1.22 OR 25M/Roll
5 /8	15	15	5.2	1.65±0.40	0.75±0.20	1.22 OR 25M/Roll
3 /4	19.1	19.1	6.3	1.90±0.40	0.85±0.20	1.22 OR 25M/Roll
1	25.4	25.4	8.5	2.00±0.40	0.90±0.20	1.22 OR 25M/Roll
5/4	30	30	10.2	2.05±0.40	0.90±0.20	1.22 OR 25M/Roll
1-1/2	38.1	38.1	13.5	2.35±0.40	1.05±0.20	1.22 OR 25M/Roll

Halogen Free Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Material: Adhesive lined heat shrink tubing with environmental sealing capability

Application: Automotive and Marine Wire Harness, Wire Splices, Breakouts and Connector-to-Cable transitions

Features:

- 3:1 shrink ratio
- Halogen free
- Super sealing against water, moisture or other contaminates
- Continuous operating temperature:-45℃ to 125℃
- Fully shrink Temperature:≥125℃

Technical Data			
Property	Test Method	Standard	Typical Performance
Tensile strength(MPa)	ASTM D2671	≥10.4	11.56
Elongation(%)	ASTM D2671	≥200	480.62
Tensile strength after aging(Mpa)	UL224 158℃ X 168hr	≥7.3	10.58
Elongation after aging (%)	UL224 158℃ X 168hr	≥100	420.75
Flammability	ASTM D2671B	Pass	Pass
Dielectric strength(kV/mm)	IEC 60243	≥15	18.36
Volume resistivity(Ω.cm)	IEC 60093	≥1X10^{14}	2.18 X 10^{14}

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.5
Softening Point(℃)	ASTM E28	95±5
Strength of pearing (PE)	ASTM D 1000	120N/25mm
Strength of pearing (Al)	ASTM D 1000	80N/25mm

Halogen Free Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Selection Chart						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
3/32	2.4	2.4	0.8	0.85±0.15	0.40±0.10	200
1/8	3.2	3.2	1	0.95±0.15	0.40±0.10	200
3/16	4.8	4.8	1.6	1.10±0.15	0.40±0.10	100
1/4	6.4	6.4	2.2	1.20±0.15	0.45±0.12	100
5/16	7.9	7.9	2.7	1.35±0.15	0.50±0.12	100
3/8	9.5	9.5	3.2	1.45±0.20	0.50±0.12	50
1/2	12.7	12.7	4.2	1.70±0.20	0.50±0.12	1.22 OR 25M/Roll
5/8	15	15	5.2	1.80±0.20	0.55±0.15	1.22 OR 25M/Roll
3/4	19.1	19.1	6.3	2.00±0.20	0.55±0.15	1.22 OR 25M/Roll
1	25.4	25.4	8.5	2.10±0.25	0.55±0.15	1.22 OR 25M/Roll
1-1/4	30	30	10.2	2.20±0.25	0.60±0.15	1.22 OR 25M/Roll
1-1/2	39	39	13.5	2.40±0.25	0.60±0.15	1.22 OR 25M/Roll
2	50	50	17	2.70±0.25	0.70±0.15	1.22 OR 25M/Roll
5/2	64	64	21	3.00±0.30	0.70±0.15	1.22 OR 25M/Roll
3	75	75	25	3.00±0.30	1.00±0.20	1.22 OR 25M/Roll
7/2	90	90	30	3.00±0.30	1.00±0.20	1.22 OR 25M/Roll
4	100	100	34	3.00±0.30	1.00±0.20	1.22 OR 25M/Roll
5	125	125	42	3.00±0.30	1.00±0.20	1.22 OR 25M/Roll

Environmentally Friendly V-0 Flame Retardant Dual Wall Tubing

Material: High flame retardant polyolefin and hot melt adhesive double layer.

Application: Outer polyolefin is an insulating and flame retardant material, and the inner layer of hot melt adhesive can buffer mechanical strain and has strong sealing property

Features:

- Minimum shrink temperature: 90℃
- Continuous operating temperature: -45℃ to 125℃
- Standard color: black

Technical Data		
Property	Test Method	Standard
Tensile Strength(MPa)	ASTM D2671	≥10.4
Elongation(%)	ASTM D2671	≥200
Tensile Strength after aging (MPa)	158℃×168h	≥7.3
Elongation after aging(%)	158℃×168h	≥100
Axial Rate Of Change (%)	ASTM D 2671	-8 ~ +8
Flammability	ASTM-DTL-23053/4	60s
Disruptive Strength(kV/mm)	IEC 60243	≥15
Volume Resistivity(Ω·cm)	IEC 60093	$\geq 10^{14}$
Flammability	GB/T 2408	V-O
Flammability	GB/T 2408	HB

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.2%
Softening Point(℃)	ASTM E28	95±5
Strength of pearing (PE)	ASTM D 1000	120N/25mm
Strength of pearing (Al)	ASTM D 1000	80N/25mm

Environmentally Friendly V-0 Flame Retardant Dual Wall Tubing

Selection Chart						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	M/spool
1/8	3.2	3.2	1	0.90±0.30	0.40±0.20	200
3/16	4.8	4.8	1.6	1.05±0.30	0.40±0.20	100
1/4	6.4	6.4	2.2	1.25±0.30	0.45±0.20	100
5/16	7.9	7.9	2.7	1.35±0.30	0.45±0.20	100
3/8	9.5	9.5	3.2	1.45±0.30	0.50±0.20	50
1/2	12.7	12.7	4.2	1.65±0.30	0.50±0.20	1.22
5/8	15	15	5.2	1.80±0.30	0.55±0.30	1.22
3/4	19.1	19.1	6.3	1.95±0.30	0.60±0.30	1.22
1	25.4	25.4	8.5	2.00±0.40	0.60±0.30	1.22
1-1/4	30	30	10.2	2.15±0.40	0.65±0.30	1.22
1-1/2	39	39	13.5	2.45±0.40	0.75±0.30	1.22
2	50	50	17	2.75±0.40	0.80±0.30	1.22

High Temperature Resistant Adhesive, Dual Wall Heat Shrink Tubing

Material: Cross-linked polyolefin and hot melt adhesive double layer

Application: Outer polyolefin is insulating and flame retardant material, the inner layer of hot melt adhesive can buffer mechanical strain and strong sealing

Features:

- Minimum shrink temperature:70℃
- Continuous operating temperature:-45℃ to 125℃
- It can adapt to the high temperature 125℃ environment for a long time, and the hot melt adhesive will not be lost.

Technical Data		
Property	Test Method	Standard
Tensile Strength(MPa)	ASTM D2671	≥10.4
Elongation(%)	ASTM D2671	≥200
Tensile Strength after aging (MPa)	158℃×168h	≥7.3
Elongation after aging(%)	158℃×168h	≥100
Axial Rate Of Change (%)	ASTM D2671	-8 ~ +8
Flammability	ASTM C2671 B	Pass
Disruptive Strength(kV/mm)	IEC 60243	≥15
Volume Resistivity(Ω·cm)	IEC 60093	$\geq 10^{14}$

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.2%
Softening Point(℃)	ASTM E28	125±5
Strength of pearing (PE)	ASTM D 1000	70N/25mm
Strength of pearing (Al)	ASTM D 1000	70N/25mm

High Temperature Resistant Adhesive, Dual Wall Heat Shrink Tubing

Selection Chart						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	M/spool
3/32	2.4	2.4	0.8	0.80±0.30	0.40±0.20	200
1/8	3.2	3.2	1	0.90±0.30	0.40±0.20	200
3/16	4.8	4.8	1.6	1.05±0.30	0.40±0.20	100
1/4	6.4	6.4	2.2	1.25±0.30	0.45±0.20	100
5/16	7.9	7.9	2.7	1.35±0.30	0.45±0.20	100
3/8	9.5	9.5	3.2	1.45±0.30	0.50±0.20	50
1/2	12.7	12.7	4.2	1.65±0.30	0.50±0.20	1.22
5/8	15	15	5.2	1.80±0.30	0.55±0.30	1.22
3/4	19.1	19.1	6.3	1.95±0.30	0.60±0.30	1.22

Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Shrink Ratio 2:1

Material: Corsslinked Polyolefins

Application: Automotive and marine wire harness, wire splices, breakouts, and connector-to-cable transitions

Features:

- 2:1 shrink ratio
- Superior sealing against water, moisture or other contaminants
- Inner adhesive bonds to plastics, steel and polyethylene
- Continuous operating temperature:-45℃ to 125℃
- Fully shrink temperature:≥125℃

Technical Data			
Property	Test Method	Standard Performance	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥ 10.4	13.25
Elongation(%)	ASTM D 2671	≥ 200	450.62
Tensile strength after aging(MPa)	UL224 158 ℃ X 168h	≥ 7.3	11.28
Elongation after aging (%)	UL224 158 ℃ X 168h	≥100	390.69
Dielectric strength(kV/mm)	IEC 60243	≥ 15	18.25
Volume resistivity(Ω.cm)	IEC 60093	≥ $1X10^{14}$	$2.14X10^{14}$
Flammability	ASTM D2671B	Pass	Pass

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D 570	≤ 0.2%
Softening Point(℃)	ASTM E 28	90±5
Strength of pearing (PE)	ASTM D 1000	120N/25mm
Strength of pearing (AL)	ASTM D 1000	80N/25mm

Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Shrink Ratio 2:1

Selection Chart-2:1 shrink ratio series						
Size		AS Supplied	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
1/16	1.6	1.6	0.8	0.60±0.30	0.30±0.2	200
3/32	2.4	2.4	1.2	0.70±0.30	0.35±0.2	200
1/8	3.2	3.2	1.6	0.70±0.30	0.35±0.2	200
3/16	4.8	4.8	2.4	0.80±0.30	0.40±0.2	100
1/4	6.4	6.4	3.2	0.80±0.30	0.40±0.2	100
5/16	7.9	7.9	3.9	0.90±0.30	0.45±0.2	100
3/8	9.5	9.5	4.8	0.90±0.30	0.45±0.2	50
1/2	12.7	12.7	6.4	0.95±0.40	0.45±0.2	1.22 OR 25M/Roll
5/8	15.9	15.9	7.9	0.95±0.40	0.45±0.2	1.22 OR 25M/Roll
3/4	19.1	19.1	9.5	1.00±0.40	0.45±0.2	1.22 OR 25M/Roll
1	25.4	25.4	12.7	1.10±0.40	0.50±0.2	1.22 OR 25M/Roll
11/4	31.8	31.8	15	1.15±0.40	0.50±0.2	1.22 OR 25M/Roll
11/2	38.1	38.1	19	1.25±0.40	0.50±0.2	1.22 OR 25M/Roll
1/3/4	44.5	44.5	22	1.35±0.40	0.55±0.2	1.22 OR 25M/Roll
2	50.8	50.8	25.4	1.50±0.40	0.60±0.2	1.22 OR 25M/Roll

Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Shrink Ratio 3:1

Application: Electrical applications, including automotive and marine wire harness, wire splices, breakouts, and connector-to-cable transitions

Features:
- 3:1 shrink ratio
- Super sealing against water, moisture or other contaminates
- Continuous operating temperature:-45℃ to 125℃
- Fully shrink temperature:≥125℃

Technical Data			
Property	Test Method	Standard	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥ 10.4	13.78
Elongation(%)	ASTM D 2671	≥ 200	460.62
Tensile strength after aging(Mpa)	UL224 158 ℃X168hr	≥ 7.3	11.34
Elongation after aging (%)	UL224 158 ℃X168hr	≥ 100	398.28
Flammability	ASTM D 2671B	Pass	Pass
Dielectric strength(kV/mm)	IEC 60243	≥ 15	17.36
Volume resistivity(Ω .cm)	IEC 60093	≥1 $X10^{14}$	2.24$X10^{14}$

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.2%
Softening Point(℃)	ASTM E28	95±5
Strength of pearing (PE)	ASTM D 1000	120N/25mm
Strength of pearing (Al)	ASTM D 1000	80N/25mm

Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Shrink Ratio 3:1

Selection Chart-3:1 shrink ratio series						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
3/32	2.4	2.4	0.8	0.80±0.30	0.40±0.20	200
1/8	3.2	3.2	1	0.90±0.30	0.40±0.20	200
3/16	4.8	4.8	1.6	1.05±0.30	0.40±0.20	100
1/4	6.4	6.4	2.2	1.25±0.30	0.45±0.20	100
5/16	7.9	7.9	2.7	1.35±0.30	0.50±0.20	100
3/8	9.5	9.5	3.2	1.45±0.30	0.50±0.20	50
1/2	12.7	12.7	4.2	1.65±0.30	0.50±0.20	1.22 OR 25M/Roll
5/8	15	15	5.2	1.80±0.30	0.55±0.30	1.22 OR 25M/Roll
3/4	19.1	19.1	6.3	1.95±0.30	0.60±0.30	1.22 OR 25M/Roll
1	25.4	25.4	8.5	2.00±0.40	0.60±0.30	1.22 OR 25M/Roll
1-1/4	30	30	10.2	2.15±0.40	0.65±0.30	1.22 OR 25M/Roll
1-1/2	39	39	13.5	2.45±0.40	0.60±0.30	1.22 OR 25M/Roll
2	50	50	17	2.75±0.40	0.75±0.30	1.22 OR 25M/Roll
5/2	64	64	21	3.05±0.40	0.80±0.30	1.22 OR 25M/Roll
3	75	75	25	3.05±0.40	1.05±0.40	1.22 OR 25M/Roll
7/2	90	90	30	3.10±0.50	1.05±0.40	1.22 OR 25M/Roll
4	100	100	34	3.10±0.50	1.05±0.40	1.22 OR 25M/Roll
5	125	125	42	3.10±0.50	1.10±0.40	1.22 OR 25M/Roll

Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Shrink Ratio 4:1

Application: Electrical applications, including automotive and marine wire harness, wire splices, breakouts, and connector-to-cable transitions

Features:

- 4:1 shrink ratio
- Superior sealing against water, moisture or other contaminants
- Ideal for connector sealing covering large diameter differences
- Inner adhesive bonds to plastics, steel and polyethylene
- Continuous operating temperature:-45℃ to 125℃
- Fully shrink temperature:≥125℃

Technical Data			
Property	Test Method	Standard	Typical Performance
Tensile strength(MPa)	ASTM D2671	≥10.4	12.68
Elongation(%)	ASTM D2671	≥200	448.72
Tensile strength after aging(MPa)	UL224 158℃X168hr	≥7.3	11.45
Elongation after aging (%)	UL224 158℃X168hr	≥100	390.41
Flammability	ASTM D2671B	Pass	Pass
Dielectric strength(kV/mm)	IEC 60243	≥15	18.25
Volume resistivity(Ω.cm)	IEC 60093	≥1X10^{14}	1.86X10^{14}

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.2%
Softening Point(℃)	ASTM E28	95±5
Strength of pearing (PE)	ASTM D 1000	120N/25mm
Strength of pearing (AL)	ASTM D 1000	80N/25mm

Dual Wall Adhesive-Lined Polyolefin Heat Shrink Tubing

Shrink Ratio 4:1

Selection Chart-4:1 shrink ratio series						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
5/32	4	4	1	1.05±0.30	0.50±0.30	200
1/4	6	6	1.5	1.15±0.30	0.50±0.30	100
5/16	8	8	2	1.55±0.30	0.60±0.30	50
1/2	12	12	3	1.75±0.30	0.60±0.30	1.22 OR 25M/Roll
5/8	16	16	4	2.00±0.30	0.70±0.30	1.22 OR 25M/Roll
25/32	20	20	5	2.30±0.40	0.70±0.30	1.22 OR 25M/Roll
1	24	24	6	2.60±0.40	0.75±0.30	1.22 OR 25M/Roll
1-1/4	32	32	8	3.00±0.40	0.90±0.30	1.22 OR 25M/Roll
2	52	52	13	3.35±0.50	0.95±0.30	1.22 OR 25M/Roll

Military Grade Dual Wall Adhesive Lined Polyolefin Heat Shrink Tube

Application: Ideal for applications where both exceptional flame retardancy and environmental sealing capabilities are required.

Features:

- 3:1&4:1 shrink ratio
- Highly flame retardant
- Superior sealing against water, moisture or other contaminants
- High shrink ratio allows for coverage of irregularly shaped connectors and components
- Superior sealing against water, moisture and other contaminants
- Continuous operating temperature: - 55℃ to 135℃
- Fully shrink temperature:≥125℃

Technical Data			
Property	Test Method	Standard	Typical Performance
Tensile Strength(MPa)	ASTM D2671	≥10.4	14.28
Elongation(%)	ASTM D2671	≥200	450.29
Tensile Strength after aging (MPa)	MIL-DTL-23053/4	≥8.4	10.82
Elongation after aging(%)	MIL-DTL-23053/4	≥100	390.27
Dieletric strength(kv/mm)	IEC 60243	≥15	17.5
Volume resistivity(Ω.cm)	IEC 60093	≥1X10^{14}	2.5X10^{14}

Adhesive		
Property	Test Method	Standard Performance
Water Absorption	ASTM D570	< 0.2%
Softening Point (℃)	ASTM E28	95±5
Strength of peeling(PE)	ASTM D 1000	120N/25mm
Strength of peeling(AL)	ASTM D 1000	80N/25mm

Military Grade Dual Wall Adhesive Lined Polyolefin Heat Shrink Tube

Selection Chart-3:1 shrink ratio series						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
1/8	3.2	3.2	1	0.90±0.30	0.40±0.20	200
3/16	4.8	4.8	1.6	1.05±0.30	0.40±0.20	100
1/4	5.4	5.4	2.2	1.25±0.30	0.45±0.20	100
5/16	7.9	7.9	2.7	1.35±0.30	0.45±0.20	100
3/8	9.5	9.5	3.2	1.45±0.30	0.50±0.20	50
1/2	12.7	12.7	4.2	1.65±0.30	0.50±0.20	1.22 OR 25M/Roll
5/8	15	15	5.2	1.80±0.30	0.55±0.30	1.22 OR 25M/Roll
3/4	19.1	19.1	6.3	1.95±0.30	0.60±0.30	1.22 OR 25M/Roll
1	25.4	25.4	8.5	2.00±0.40	0.60±0.30	1.22 OR 25M/Roll
1-1/4	30	30	10.2	2.15±0.40	0.65±0.30	1.22 OR 25M/Roll
1-1/2	39	39	13.5	2.45±0.40	0.75±0.30	1.22 OR 25M/Roll
2	50	50	17	2.75±0.40	0.80±0.30	1.22 OR 25M/Roll

Selection Chart-4:1 shrink ratio series						
Size		Expanded	After Recovery			Standard Package
Inch	mm	Inner Diameter Min (mm)	Inner Diameter Max (mm)	Total Wall Thickness (mm)	Adhesive Thickness (mm)	Spool Length M/spool
5/32	4	4	1	1.05±0.30	0.50±0.20	200
1/4	6	6	1.5	1.15±0.30	0.50±0.20	100
5/16	8	8	2	1.55±0.30	0.60±0.25	50
1/2	12	12	3	1.75±0.30	0.60±0.25	1.22 OR 25M/Roll
5/8	16	16	4	2.00±0.30	0.70±0.30	1.22 OR 25M/Roll
25/32	20	20	5	2.30±0.40	0.70±0.30	1.22 OR 25M/Roll
1	24	24	6	2.60±0.40	0.75±0.30	1.22 OR 25M/Roll
1-1/4	32	32	8	3.00±0.50	0.90±0.30	1.22 OR 25M/Roll
2	52	52	13	3.35±0.50	0.95±0.30	1.22 OR 25M/Roll

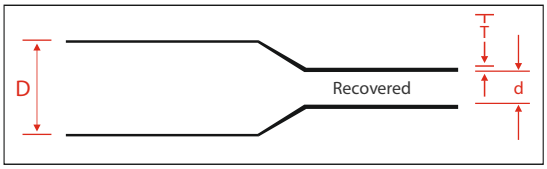
Busbar Insulating Heat Shrink Tube

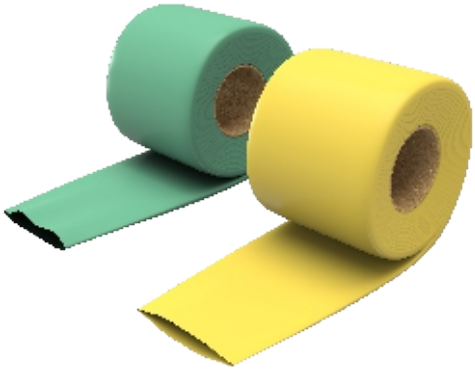
Low Voltage & Medium Voltage

Material: Cross-linked Polyolefin

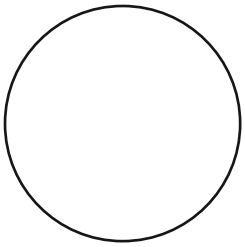
Application: Used to offer insulation protection for busbar in switchgear and substation. Protects against short circuit and electrical leakage by small animals.

Features: Shrink Temperature starts at 70℃ and fully recovered at 130℃





Rectangular Busbar



Round Busbar

Technical Data		
Property	Test Method	Standard Value
Heat Shock	160℃，4h	No Crack
Tensile Strength	ASTM-D-638	≥8MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength Variation After Heat Aging (130℃x168h)	ASTM-D-5510	≤±20%
Elongation at Break Variation After Heat Aging (130℃x168h)	ASTM-D-5510	≤±20%
Flammability (Oxygen Index)	IEC 4589	≥30%

Electrical Property of Heat Shrink Busbar Tube			
Item	Test Method	Standard Value	
		11kV	33kV
Volume Resistivity	IEC 60093	≥1x10^{14}Ω·cm	
Dielectric Strength	IEC 60243	≥25kV/mm	
Power Frequency Voltage With standing	DL/T 1059	42kV	95kV
Impulse Voltage	DL/T 1059	75kV	185kV

Busbar Insulating Heat Shrink Tube

Low Voltage & Medium Voltage

Selection Chart-11 kV series						
As Supplied/mm		After Recovered/mm		Standard Length /mm(±5)	Application /mm	
ID (Min)	Wall Thickness (±20%)	ID (Max)	Wall Thickness (±10%)		Width of Rectangular Busbar	Diameter of Circular Busbar
20	1	10	2.4	1000	20	15
25	1	12	2.4	1000	25	15
30	1.1	14	2.4	1000	30	20
40	1	17	2.4	1000	40	30
50	1.1	22	2.7	1000	50	35
65	1.1	28	2.7	1000	65	45
75	1.1	32	2.7	1000	75	50
85	1.1	37	2.7	1000	85	65
100	1.1	43	2.7	1000	100	75
120	1.1	53	2.7	1000	120	85
140	1.1	65	2.7	1000	150	100
180	1.1	75	2.7	1000	180	125
200	1.1	88	2.7	1000	200	150
220	1	88	2.7	1000	/	/
250	1.5	107	3.6	1000	/	/
290	1.3	107	3.8	1000	/	/
325	1.1	107	3.8	1000	/	/
350	1.2	159	2.7	1000	/	/
400	1.2	185	2.7	1000	/	/
500	1.2	210	3	1000	/	/

Busbar Insulating Heat Shrink Tube

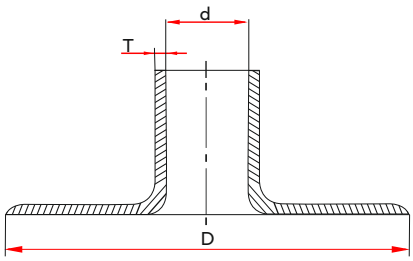
Low Voltage & Medium Voltage

Selection Chart-33 kV series						
As Supplied/mm		After Recovered/mm		Standard Length /mm(±5)	Application /mm	
ID (Min)	Wall Thickness (±20%)	ID (Max)	Wall Thickness (±10%)		Width of Rectangular Busbar	Diameter of Circular Busbar
20	2.4	10	4.5	1000	20	15
25	2	10	4.5	1000	20	15
30	2.4	14	4.5	1000	30	20
40	2.2	17	4.5	1000	40	30
50	2.2	21	4.8	1000	50	35
65	2.2	27	5	1000	65	45
75	2.2	31	5	1000	75	50
85	2	32	5	1000	85	55
100	2	38	5	1000	100	75
120	2.1	50	5	1000	120	85
140	2.1	59	5	1000	150	105
180	2.3	71	5.5	1000	180	125
200	2.2	88	5	1000	200	140
220	2	88	5	1000	/	/

Heat Shrinkable Rain Sheds

Material: Manufactured from polyolefin, coated with adhesive.

Features: High creep resistance and anti-tracking property.



Technical Data Sheet		
Property	Test Method	Standard Value
Tensile Strength	ASTM-D-638	≥8MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength Variation After Heat Aging (130℃x168h)	ASTM-D-5510	≤±30%
Elongation at Break Variation After Heat Aging (130℃x168h)	ASTM-D-5510	≤±30%
Volume Resistivity	IEC 60093	≥1x10^{14}Ω.cm
Dielectric Strength	IEC 60243	≥20kV/mm
Brittle Temperature	ISO 974	-40℃
Tracking Strength	IEC 60587	1A3.5
Dielectric Constant	IEC 60250	≤5
Heat Shock	160℃ , 4h	No Crack
Water Absorption(23±2)℃ 24h	ISO 62	≤0.1%
Hardness (Shore A)	ISO 868	≥80

Heat Shrinkable Rain Sheds

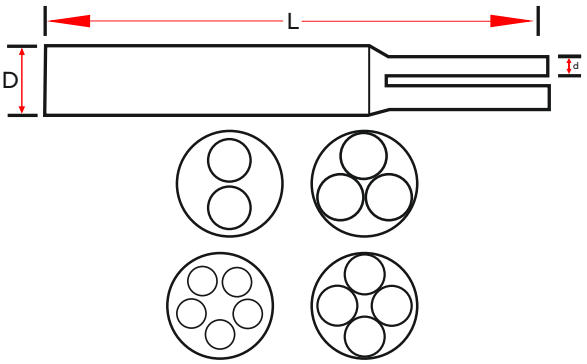
Three Core Rain Sheds			
As Supplied/mm		After Recovered/mm	
Inner Diameter (d) (±5)	Wall Thickness (T) (±20%)	Inner Diameter (d) Max	Wall Thickness (T) (±10%)
35	1.1	16	2.7
40	1.1	22	3
50	1.1	22	3

Selection Chart - Single core			
D/mm(±5)	As Supplied/mm	After Recovered/mm	
	Inner Diameter (d) (±5)	Inner Diameter (d) Max	Wall Thickness (T) (±0.4)
90	30	12	2.8
90	35	12	2.8
120	40	20	2.8
120	45	20	2.8
120	50	20	2.8
120	55	20	2.8
120	60	20	2.8
140	75	30	2.6
140	80	30	2.6

Heat Shrinkable Breakouts

Material: Cross-linked polyolefin.

Application: Used in indoor & outdoor termination Kit



Technical Data Sheet		
Property	Test Method	Standard Value Insulated Breakout
Tensile Strength	ASTM-D-638	≥12MPa
Elongation at Break (120℃,168 hrs)	ASTM-D-638	≥300%
Tensile Strength after Aging (120℃,168 hrs)	ASTM-D-638	≥10MPa
Elongation at Break after Aging	ASTM-D-638	≥230%
Dielectric Strength	IEC 60243	≥15kV/mm
Water Absorption	ISO 62	≤0.1%
Volume Resistivity	IEC 60093	≥1×10^13Ω·cm
Brittle Temperature	ISO 974	-40℃
Heat Shock	160℃, 4h	No Crack
Hardness(Shore A)	ISO 868	≥80

Selection Chart- 2 core					
Cores	As Supplied/mm			After Recovered/mm	
	Body Diameter (D) Min	Finger Diameter (d) Min	Full Length (L)(±5)	Body Diameter (D) Ma	Finger Diameter (d) Max
2-cores	24	12	140	14	5
Breakout	38	20	145	18	7
	45	25	145	22	10
	60	35	140	25	11
	70	40	140	25	11

Heat Shrinkable Breakouts

Selection Chart -3 core				
As Supplied/mm			After Recovered/mm	
Body Diameter (D) Min	Finger Diameter (d) Min	Full Length (L)(±5)	Body Diameter (D) Ma	Finger Diameter (d) Max
24	11	140	17	5
48	18	165	22	7
58	25	180	28	8
68	30	210	37	13
87	39	220	43	16
106	42	235	53	19
125	58	245	65	25
140	65	245	65	25

Selection Chart- 4 core				
As Supplied/mm			After Recovered/mm	
Body Diameter (D) Min	Finger Diameter (d) Min	Full Length (L)(±5)	Body Diameter (D) Ma	Finger Diameter (d) Max
38	10	125	19	5
50	16	135	25	7
70	23	185	32	10
82	30	210	46	13
90	35	210	46	13
109	42	240	54	18

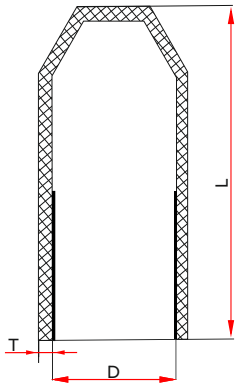
Selection Chart- 5 core				
As Supplied/mm			After Recovered/mm	
Body Diameter (D) Min	Finger Diameter (d) Min	Full Length (L)(±5)	Body Diameter (D) Ma	Finger Diameter (d) Max
42	11	130	21	5
57	15	170	30	7
70	23	170	38	9
90	30	180	53	13
120	39	205	48	14

Heat Shrinkable Endcaps

Material: Manufactured from crosslinked polyolefins

Application: Applied as insulation on power and telecommunication cable ends. Used to seal cable ends during installation or storage, protecting cable ends against oxidation, ozone, UV, etc. Coated with hot-melt adhesive to ensure reliable seal

Technical Data sheet		
Property	Test Method	Standard Value
Tensile Strength	ASTM-D-638	≥12MPa
Elongation at Break	ASTM-D-638	≥300%
Volume Resistivity	IEC 60093	≥1x10^{13}Ω.cm
Dielectric Strength	IEC 60243	≥15kV/mm
Brittle Temperature	ISO 974	-40℃
Heat Shock	160℃ , 4h	No Crack
Water Absorption(23±2)℃ 24h	ISO 62	≤0.1%
Hardness (Shore A)	ISO 868	≥80



Selection Chart				
As Supplied (mm)			After Recovered/mm	
Inner Diameter (D) Min	Wall Thickness (T) (±20%)	Height (L)(±5)	Inner Diameter (D) Min	Wall Thickness (T) (±20%)
12	1	45	5	2.5
16	1	70	8.5	2.5
20	1	70	8.5	2.5
25	1	80	11	2.5
30	1.3	95	16	2.8
35	1	95	18	2.6
40	1.1	95	18	2.6
55	1	125	26	2.7

Selection Chart				
As Supplied (mm)			After Recovered/mm	
Inner Diameter (D) Min	Wall Thickness (T) (±20%)	Height (L)(±5)	Inner Diameter (D) Min	Wall Thickness (T) (±20%)
75	1.3	145	31	3.2
97	1.3	140	40	5.2
117	1.3	155	57	4
140	1.3	185	63	4
158	2.1	270	95	4
180	2.1	270	95	4
200	1.5	270	95	4
245	1.5	270	95	4

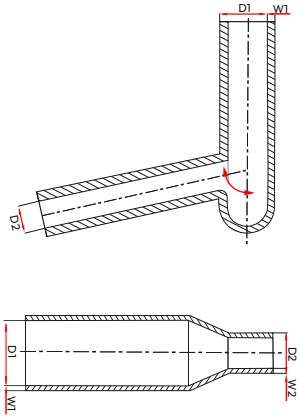
Boots & Right-angled boots

Material: Crosslinked polyolefins

Application: Protection against flashover or surges induced in switchgear and transformer.

Features:
- Inner coated with hot melt adhesive at ends
- Excellent insulating properties
- Halogen free -flame retardant
- Anti-tracking

Description: Provides insulation to the bushings in the termination boxes for cables



Technical Data sheet		
Property	Test Method	Standard Value
Tensile Strength	ASTM-D-638	≥10MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength Variation After Heat Aging (130°C x168h)	ASTM-D-5510	≤±20%
Elongation at Break Variation After Heat Aging (130°C x168h)	ASTM-D-5510	≤±20%
Volume Resistivity	IEC 60093	≥1x10^{14}Ω.cm
Dielectric Strength	IEC 60243	≥25kV/mm

Selection chart					
As Supplied/mm			After Recovered/mm		
D1 Min	D2 Min	D1 Max	D2 Max	W1 (±10%)	W2(±10%)
Right Angle Boot					
80	35	36	19	5.6	5
80	50	36	19	5.6	5
80	50	36	28	5.6	5
95	70	36	28	5.6	5
145	70	72	34	5.6	5
Straight Boot					
80	34	32	19	3.6	3.6
80	58	32	19	3.6	3.6
140	90	68	34	3.6	3.6

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