



WOER WOER HEAT-SHRINKABLE MATERIAL

STOCK CODE:002130

ELECTRICAL

power product



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Global Solution Provider

Shenzhen Woer Heat-shrinkable Material Co., Ltd (Stock Code: 002130) is a high-tech enterprise with headquarter in Shenzhen, China. Founded in 1998, Woer has undergone dynamic growth and become one of the largest manufacturers of heat & cold shrinkable insulation material.

For more than 15 years, the Woer brand has always been a guarantee for the supply of products and services. From product design and raw materials purchasing to final inspection and testing, Woer has a perfect quality assurance program covering the entire production process. So far, we have been successfully certified by ISO 9001, ISO 14001, ISO/TS 16949, UL, CSA, 3C, etc. Also, we've got the Type Test certification from KEMA in 2007, and our high voltage lab as well as material lab was authenticated by CNAS in 2011.

Woer Power Division, a major part of Woer Corporation, is well-known for its outstanding products and professional services. For more than 15 years, Woer Power Division has been developing, manufacturing and marketing a broad range of cable accessories for reliable power delivery. And it has made tremendous contribution to the innovation of product design and manufacture. All our experiences, together with a strong commitment to R&D, have prepared us to be a global solution provider in cable accessories industry.

At Woer, we know this can be done.



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COLD SHRINK CABLE ACCESSORIES

HEAT SHRINK CABLE ACCESSORIES

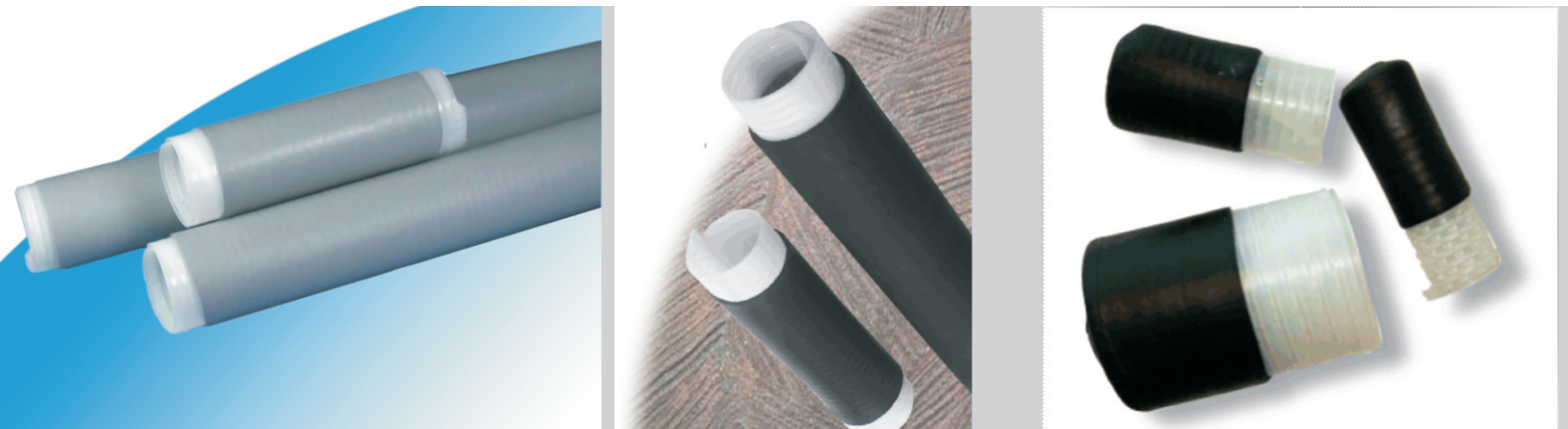
COLD APPLIED CABLE ACCESSORIES

KEMA REPORTS

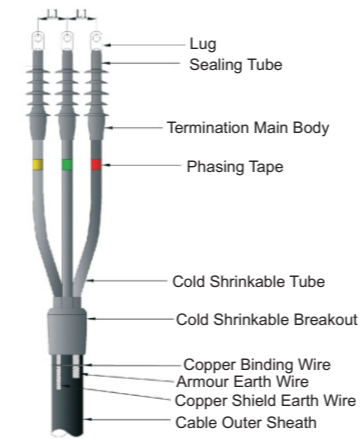
COLD SHRINK CABLE ACCESSORIES

Cold shrink cable accessories are capable of shrinking without application of heat. They are manufactured in a pre-expanded condition and assembled onto a removable core. The core is removed after the tube is positioned over the cable for installation, allowing the tube to shrink and providing a moisture-tight seal.

Woer cold shrink cable accessories are characterized by simple solutions with safe connection. They are manufactured with liquid silicone rubber, which has high-quality electrical insulation, excellent tracking resistance as well as high elasticity.



WLN, WLW Cold Shrink Termination Kits 1-36 kV (For XLPE, Screened Armoured Cables)



Description

The cold shrink termination is available for indoor & outdoor applications for single core and 3-core cables up to 36kV. The termination is one-piece design manufactured from high quality liquid silicone rubber. The cold shrink termination is factory expanded on a removable inner-supporting core. Once the termination is positioned onto the cable core, the supporting core is unwound and removed, and the live-memory action of the material shrinks the termination into place. The termination kit includes all the necessary components to make the installation.

Features

- Simple and fast installation, no heat or special tools required
- One-piece design with integrated stress control
- Offering protection against aging, tracking and erosion
- High resistance to fungus, acid, alkalis and ozone
- Accommodating a wide range of cable sizes
- For indoor or outdoor applications

Selection Table

Voltage U_0/U_m (U _m)	Cores	Cable Cross Section /mm ²	Diameter over Insulation /mm	Product No.
18/30kV (36)	1, 3 Indoor	35-50	22-27	18/30kVWLN-1/1(3/1)
		70-185	27.5-35	18/30kVWLN-1/2(3/2)
		240-500	35.5-46	18/30kVWLN-1/3(3/3)
		630	46.5-55	18/30kVWLN-1/4(3/4)
18/30kV (36)	1, 3 Outdoor	35-50	22-27	18/30kVWLW-1/1(3/1)
		70-185	27.5-35	18/30kVWLW-1/2(3/2)
		240-500	35.5-46	18/30kVWLW-1/3(3/3)
		630	46.5-55	18/30kVWLW-1/4(3/4)
12/20kV (24)	1, 3 Indoor	25-50	18-21.5	12/20kVWLN-1/1(3/1)
		70-120	21-26.5	12/20kVWLN-1/2(3/2)
		150-240	25.5-32	12/20kVWLN-1/3(3/3)
		300-400	32.5-37	12/20kVWLN-1/4(3/4)
12/20kV (24)	1, 3 Outdoor	500-630	39-44.3	12/20kVWLN-1/5(3/5)
		25-50	18-21.5	12/20kVWLW-1/1(3/1)
		70-120	21-26.5	12/20kVWLW-1/2(3/2)
		150-240	25.5-32	12/20kVWLW-1/3(3/3)
8.7/15kV (17.5)	1, 3 Indoor	300-400	32.5-37	12/20kVWLW-1/4(3/4)
		500-630	39-44.3	12/20kVWLW-1/5(3/5)
		25-50	16-19.5	8.7/15kVWLN-1/1(3/1)
		70-120	19-24.5	8.7/15kVWLN-1/2(3/2)
8.7/15kV (17.5)	1, 3 Outdoor	150-240	23.5-30	8.7/15kVWLN-1/3(3/3)
		300-400	30.5-35	8.7/15kVWLN-1/4(3/4)
		500-630	37-42.3	8.7/15kVWLN-1/5(3/5)
		25-50	16-19.5	8.7/15kVWLW-1/1(3/1)
6/10kV (12)	1, 3 Indoor	70-120	19-24.5	8.7/15kVWLW-1/2(3/2)
		150-240	23.5-30	8.7/15kVWLW-1/3(3/3)
		300-400	30.5-35	8.7/15kVWLW-1/4(3/4)
		500-630	37-42.3	8.7/15kVWLW-1/5(3/5)
6/10kV (12)	1, 3 Outdoor	50-70	16-19.5	6/10kVWLN-1/1(3/1)
		95-150	19-24.5	6/10kVWLN-1/2(3/2)
		185-300	23.5-30	6/10kVWLN-1/3(3/3)
		400-500	30.5-35	6/10kVWLN-1/4(3/4)
0.6/1kV (1.2)	1, 3, 4, 5 Indoor or Outdoor	630	37-42.3	6/10kVWLN-1/5(3/5)
		50-70	16-19.5	6/10kVWLW-1/1(3/1)
		95-150	19-24.5	6/10kVWLW-1/2(3/2)
		185-300	23.5-30	6/10kVWLW-1/3(3/3)
0.6/1kV (1.2)	1, 3, 4, 5 Indoor or Outdoor	400-500	30.5-35	6/10kVWLW-1/4(3/4)
		630	37-42.3	6/10kVWLW-1/5(3/5)
		25-50	—	0.6/1kVWLT-1(3,4,5)/1
		70-120	—	0.6/1kVWLT-1(3,4,5)/2
0.6/1kV (1.2)	1, 3, 4, 5 Indoor or Outdoor	150-240	—	0.6/1kVWLT-1(3,4,5)/3
		300-400	—	0.6/1kVWLT-1(3,4,5)/4

WLJ
Cold Shrink Joint Kits 1-36 kV



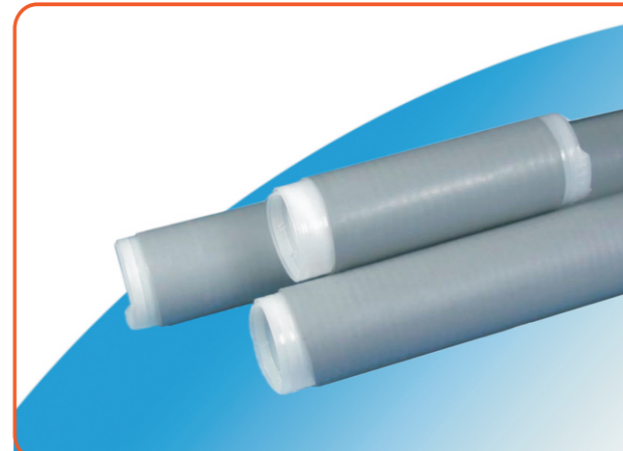
Description

The cold shrink cable joint is suitable for 1 or 3-core XLPE cable with Al or Cu conductor (1-36kV). The joint body is made of advanced liquid silicone rubber with integrated stress control. This design vouches for the best possible interface, thereby greatly minimizing partial discharge and improving its performance during operation. The joint kit includes all the necessary components to make the installation.

Selection Table

Voltage U_0/U_{Um}	Cores	Cable Cross Section/mm ²	Diameter over Insulation/mm	Product No.
18/30kV (36)	1, 3	35-50	22-28	18/30kVWLJ-1/1(3/1)
		70-120	26.5-33	18/30kVWLJ-1/2(3/2)
		150-240	31.5-39	18/30kVWLJ-1/3(3/3)
		300-400	35.5-43	18/30kVWLJ-1/4(3/4)
		500-630	40.5-49	18/30kVWLJ-1/5(3/5)
12/20kV (24)	1, 3	25-50	18-21.5	12/20kVWLJ-1/1(3/1)
		70-120	21-26.5	12/20kVWLJ-1/2(3/2)
		150-240	25.5-32	12/20kVWLJ-1/3(3/3)
		300-400	32.5-37	12/20kVWLJ-1/4(3/4)
		500-630	39-44.3	12/20kVWLJ-1/5(3/5)
8.7/15kV (17.5)	1, 3	25-50	16-19.5	8.7/15kVWLJ-1/1(3/1)
		70-120	19-24.5	8.7/15kVWLJ-1/2(3/2)
		150-240	23.5-30	8.7/15kVWLJ-1/3(3/3)
		300-400	30.5-35	8.7/15kVWLJ-1/4(3/4)
		500-630	37-42.3	8.7/15kVWLJ-1/5(3/5)
6/10kV (12)	1, 3	50-70	16-19.5	6/10kVWLJ-1/1(3/1)
		95-150	19-24.5	6/10kVWLJ-1/2(3/2)
		185-300	23.5-30	6/10kVWLJ-1/3(3/3)
		400-500	30.5-35	6/10kVWLJ-1/4(3/4)
		630	37-42.3	6/10kVWLJ-1/4(3/4)
0.6/1kV (1.2)	1, 3, 4, 5	25-50	—	0.6/1kVWLJ-1(3,4,5)/1
		70-120	—	0.6/1kVWLJ-1(3,4,5)/2
		150-240	—	0.6/1kVWLJ-1(3,4,5)/3
		300-400	—	0.6/1kVWLJ-1(3,4,5)/4

WCST
Cold Shrink Tube



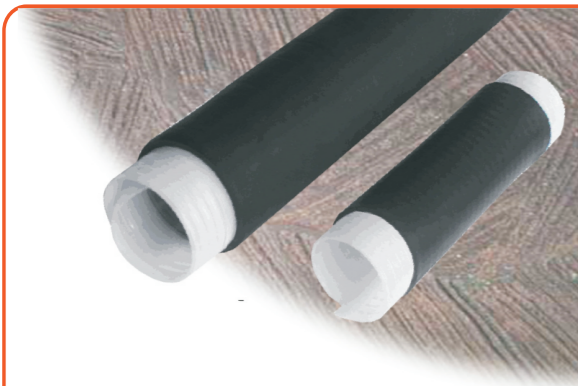
- Made of liquid silicone rubber
- Offering good mechanical, insulation and sealing protection
- Accommodating a wide range of cable sizes
- For indoor or outdoor applications
- Simple and fast installation
- Color: Grey, black

Selection Table

Product No.	ID* as Supplied (Min) /mm	ID* after Recovered (Max) /mm	Length after Recovered/mm	Thickness after Recovered(±10%)/mm	Application Range/mm
WCST-1	20	8	80~450	2	Ø10 ~ Ø16
WCST-2	28	10	80~500	2.5	Ø12 ~ Ø20
WCST-3	32	12	80~490	2.5	Ø13.2 ~ Ø22.4
WCST-4	32	13	80~490	2	Ø14 ~ Ø24
WCST-5	35	16	80~450	2	Ø18 ~ Ø29
WCST-6	40	18	80~450	2	Ø20 ~ Ø34
WCST-7	47	21	80~470	2	Ø23 ~ Ø41
WCST-8	53	25	80~500	2	Ø27 ~ Ø47
WCST-9	65	26	80~500	3	Ø27 ~ Ø50
WCST-10	70	30	80~500	3	Ø32 ~ Ø60
WCST-11	80	31	80~500	3	Ø33 ~ Ø72
WCST-12	80	36	80~500	3	Ø38 ~ Ø72
WCST-13	88	37	80~500	3	Ø39 ~ Ø80
WCST-14	104	42	80~500	3	Ø44 ~ Ø94
WCST-15	110	38	80~420	6	Ø40 ~ Ø100
WCST-16	110	60	80~420	6	Ø62 ~ Ø100

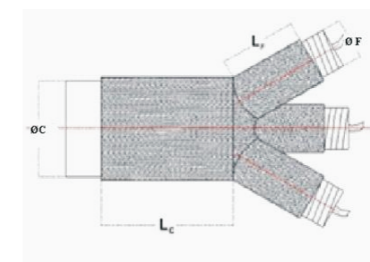
Remark: ID* means inner diameter.

WEPDMC
EPDM Cold Shrink Tube



- Made of EPDM rubber
- Offering good mechanical, insulation and sealing protection
- Accommodating a wide range of cable sizes
- For indoor or outdoor applications
- Simple and fast installation

WCSF
Cold Shrink Breakout



- Made of liquid silicone rubber
- Simple and fast installation
- meeting a variety of configuration requirements
- Providing sealing protection over multi-core cable crutch, including 3-, 4-, 5-, 6-core breakouts

Selection Table

Product No.	ID as Supplied(Min) /mm	Application Range/mm	Length/mm
2320-6	Ø20	Ø8-Ø15 (0.30"-0.59")	152 (6")
2320-7	Ø20	Ø8-Ø15 (0.30"-0.59")	178 (7")
2525-7(8)	Ø25	Ø10-Ø20 (0.39"-0.79")	178 (7") , 203 (8")
2525-11(12)	Ø25	Ø10-Ø20 (0.39"-0.79")	280 (11") , 305 (12")
2532-10	Ø32	Ø12-Ø26 (0.47"-1.02")	254 (10")
2532-11(12)	Ø32	Ø12-Ø26 (0.47"-1.02")	280 (11") , 305 (12")
2635-6(8)	Ø35	Ø12-Ø26 (0.55"-1.18")	152 (6") , 203 (8")
2635-9(11)	Ø35	Ø12-Ø26 (0.55"-1.18")	230 (9") , 280 (11")
2740-6(8)	Ø40	Ø17.5-Ø33 (0.69"-1.30")	152 (6") 203 (8")
2740-10(12)	Ø40	Ø17.5-Ø33 (0.69"-1.30")	254 (10") , 305 (12")
2740-18	Ø40	Ø17.5-Ø33 (0.69"-1.30")	457 (18")
2853-6(7)	Ø53	Ø25-Ø46 (0.98"-1.81")	152 (6") , 178 (7")
2853-8(10)	Ø53	Ø25-Ø46 (0.98"-1.81")	203 (8") , 254 (10")
2853-12(18)	Ø53	Ø25-Ø46 (0.98"-1.81")	305 (12") , 457 (18")
2970-6(9)	Ø70	Ø32-Ø63 (1.26"-2.48")	152 (6") , 230 (9")
2970-12(14)	Ø70	Ø32-Ø63 (1.26"-2.48")	305 (12") , 355 (14")
2970-18	Ø70	Ø32-Ø63 (1.26"-2.48")	457 (18")
3104-9	Ø104	Ø43-Ø94 (1.69"-3.70")	229 (9")

Selection Table

Product No.	Cores	Ø C (As Supplied/After Recovered) /mm	Application Range /mm	Ø F (As Supplied/After Recovered)/mm	Application Range/mm	L _F /mm	L _C /mm
WCSF 3-1(1#)	3	80/36	Ø38-Ø67	32/14	Ø16-Ø26	45	130
WCSF 3-2(2#)		88/43	Ø45-Ø78	35/16	Ø18-Ø29	45	135
WCSF 3-3(3#)		104/50	Ø52-Ø94	40/20	Ø22-Ø34	45	150
WCSF 3-4(4#)		120/59	Ø61-Ø110	47/23	Ø25-Ø41	45	165
WCSF 3-5(5#)		140/72	Ø74-Ø130	60/28	Ø30-Ø54	55	180
WCSF 3-5A1(6#)		150/72	Ø74-Ø140	65/28	Ø30-Ø59	55	180
WCSF 3-5A2(7#)		165/72	Ø74-Ø155	70/28	Ø30-Ø64	55	180
WCSF 4-1(1#)	4	65/20	Ø22-Ø55	20/6	Ø8-Ø14	35	126
WCSF 4-2(2#)		80/28	Ø30-Ø70	25/8	Ø10-Ø19	40	137
WCSF 4-3(3#)		88/40	Ø42-Ø78	32/10	Ø12-Ø26	40	145
WCSF 4-4(4#)		120/45	Ø47-Ø110	47/15	Ø17-Ø41	40	145
WCSF 5-1(1#)	5	80/26	Ø28-Ø70	20/6	Ø8-Ø14	40	123
WCSF 5-2(2#)		88/36	Ø38-Ø78	25/8	Ø10-Ø19	40	134
WCSF 5-3(3#)		110/47	Ø49-Ø100	35/11	Ø13-Ø29	45	138
WCSF 5-3A(4#)		120/47	Ø49-Ø110	40/11	Ø13-Ø36	45	138
WCSF 6-1	6	104/35	Ø37-Ø94	32/10	Ø12-Ø26	60	135

**WCSEC
Cold Shrink End Caps**



- Made of EPDM rubber
- Simple and fast installation
- meeting a variety of configuration requirements
- Providing sealing protection over multi-core cable ends
- Used to seal cable ends during installation or storage, protecting cable ends against moisture, contamination and corrosion.

Features

- Simple and fast installation, no tools required.
- Accommodating size ranges from 12mm – 70mm.
- Sealing tight, high rebound even after prolonged years of aging and exposure.
- Water-proof.
- No mastic or tape required.
- No torches or heat required.
- High resistance to fungus, acid, alkalis and ozone
- Easily removed.
- No training required for installation.

Application

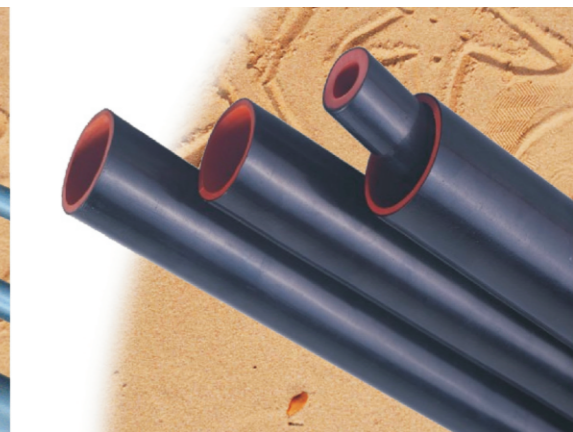
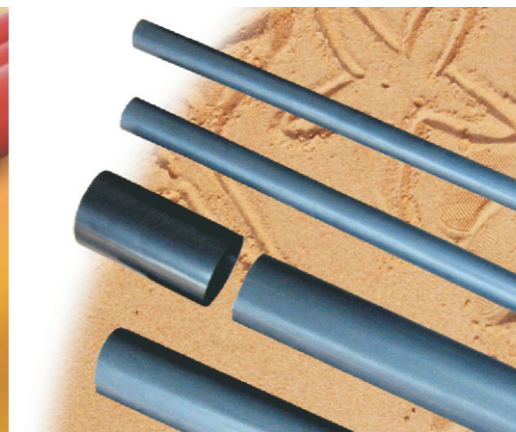
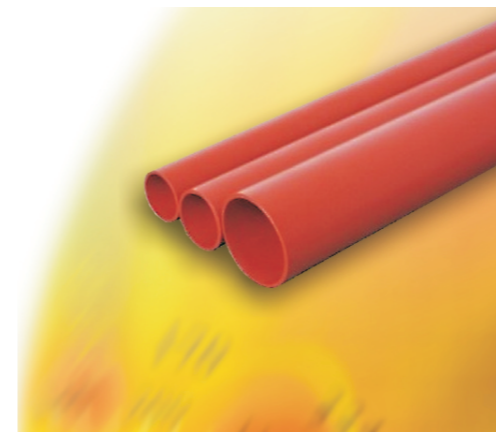
The WOER Cold Shrink EC-Series End Caps protect cables, pipes and other cylindrical objects from exposure to moisture, contamination, corrosion, ozone, ultra-violet radiation, physical contact and other environmental hazards.

Selection Table

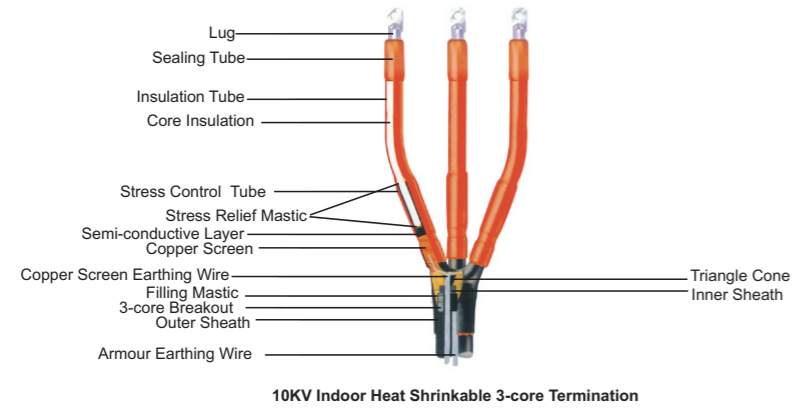
Product No.	ID as Supplied(Min) /mm	ID after Recovered (Max) /mm	Wall Thickness after Recovered/mm	Application Range/mm	Length/mm (±10%)
WCSEC-1	Ø20	Ø12	2.5	Ø13- Ø16	70
WCSEC-2	Ø28	Ø16	2.5	Ø18- Ø24	70
WCSEC-3	Ø47	Ø23	2.6	Ø25- Ø38	70
WCSEC-4	Ø80	Ø46	2.6	Ø48- Ø70	70

HEAT SHRINK CABLE ACCESSORIES

Heat shrink cable accessories are made of rubber/plastic composites. After exposure to radiation, the semi-finished product is heated and stretched to expand its dimension. It is then rapidly cooled in order to keep its shape. When installing, the cable accessories will shrink back down to the original dimensions by applying heating because of their “shape memory effect”. Therefore, the heat shrink cable accessories will provide excellent insulation, sealing and mechanical protection for power cables.



Heat Shrink Termination Kits 1-36kV

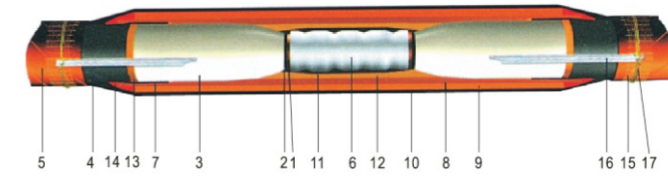


10KV Indoor Heat Shrinkable 3-core Termination

Selection Table

Voltage	Cores	Cross Section /mm ²	Product No.	
			Indoor Termination	Outdoor Termination
18/30kV(36)	3, 1	35-50	18/30kVRSNY-3/1(1/1)	18/30kVRSWY-3/1(1/1)
		70-120	18/30kVRSNY-3/2(1/2)	18/30kVRSWY-3/2(1/2)
		150-240	18/30kVRSNY-3/3(1/3)	18/30kVRSWY-3/3(1/3)
		300-400	18/30kVRSNY-3/4(1/4)	18/30kVRSWY-3/4(1/4)
		500-630	18/30kVRSNY-3/5(1/5)	18/30kVRSWY-3/5(1/5)
12/20kV(24)	3, 1	35-50	12/20kVRSNY-3/1(1/1)	12/20kVRSWY-3/1(1/1)
		70-120	12/20kVRSNY-3/2(1/2)	12/20kVRSWY-3/2(1/2)
		150-240	12/20kVRSNY-3/3(1/3)	12/20kVRSWY-3/3(1/3)
		300-400	12/20kVRSNY-3/4(1/4)	12/20kVRSWY-3/4(1/4)
		500-630	12/20kVRSNY-3/5(1/5)	12/20kVRSWY-3/5(1/5)
8.7/15kV(17.5)	3, 1	25-50	8.7/15kVRSNY-3/1(1/1)	8.7/15kVRSWY-3/1(1/1)
		70-120	8.7/15kVRSNY-3/2(1/2)	8.7/15kVRSWY-3/2(1/2)
		150-240	8.7/15kVRSNY-3/3(1/3)	8.7/15kVRSWY-3/3(1/3)
		300-400	8.7/15kVRSNY-3/4(1/4)	8.7/15kVRSWY-3/4(1/4)
		500-630	8.7/15kVRSNY-3/5(1/5)	8.7/15kVRSWY-3/5(1/5)
6/10kV(12)	3, 1	25-50	6/10kVRSNY-3/1(1/1)	6/10kVRSWY-3/1(1/1)
		70-120	6/10kVRSNY-3/2(1/2)	6/10kVRSWY-3/2(1/2)
		150-240	6/10kVRSNY-3/3(1/3)	6/10kVRSWY-3/3(1/3)
		300-400	6/10kVRSNY-3/4(1/4)	6/10kVRSWY-3/4(1/4)
		500-630	6/10kVRSNY-3/5(1/5)	6/10kVRSWY-3/5(1/5)
0.6/1kV(1.2)	4, 5, 3, 2, 1	4-6	0.6/1kVRST-4(5,3,2,1)/(-1)	
		10-16	0.6/1kVRST-4(5,3,2,1)/0	
		25-50	0.6/1kVRST-4(5,3,2,1)/1	
		70-120	0.6/1kVRST-4(5,3,2,1)/2	
		150-240	0.6/1kVRST-4(5,3,2,1)/3	
		300-400	0.6/1kVRST-4(5,3,2,1)/4	

Heat Shrink Cable Joint Kits



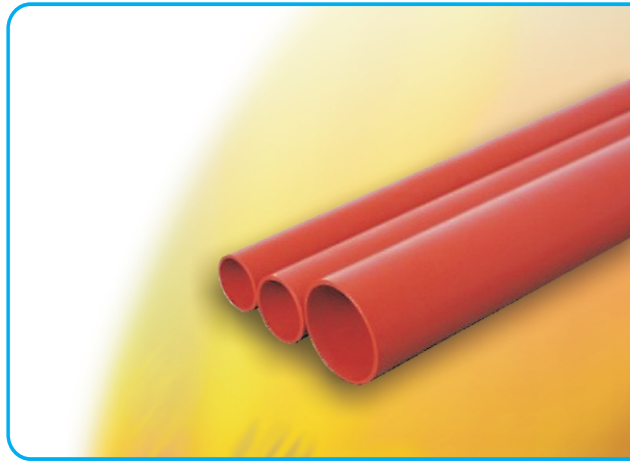
1. Conductor
2. Inner Semi-conductive Layer
3. Insulation Core
4. Outer Semi-conductive Layer
5. Copper Screen
6. Connector
7. Stress Control Tube
8. Inner Insulation Tube
9. Outer Insulation Tube
10. Semi-conductive Tube
11. Semi-conductive Tape
12. Filling Mastic
13. Stress-relief Mastic
14. Sealing Mastic
15. Copper Mesh
16. Earth Wire
17. Binding Wire

10KV 1-core Heat Shrinkable Straight Through Joint

Selection Table

Voltage U ₀ /U(U _m)	Cores	Cross Section/mm ²	Product No.
18/30kV(36)	3,1	35-50	18/30kVRSJY-3/1(1/1)
		70-120	18/30kVRSJY-3/2(1/2)
		150-240	18/30kVRSJY-3/3(1/3)
		300-400	18/30kVRSJY-3/4(1/4)
		500-630	18/30kVRSJY-3/5(1/5)
12/20kV(24)	3,1	35-50	12/20kVRSJY-3/1(1/1)
		70-120	12/20kVRSJY-3/2(1/2)
		150-240	12/20kVRSJY-3/3(1/3)
		300-400	12/20kVRSJY-3/4(1/4)
		500-630	12/20kVRSJY-3/5(1/5)
8.7/15kV(17.5)	3,1	25-50	8.7/15kVRSJY-3/1(1/1)
		70-120	8.7/15kVRSJY-3/2(1/2)
		150-240	8.7/15kVRSJY-3/3(1/3)
		300-400	8.7/15kVRSJY-3/4(1/4)
		500-630	8.7/15kVRSJY-3/5(1/5)
6/10kV(12)	3,1	25-50	6/10kVRSJY-3/1(1/1)
		70-120	6/10kVRSJY-3/2(1/2)
		150-240	6/10kVRSJY-3/3(1/3)
		300-400	6/10kVRSJY-3/4(1/4)
		500-630	6/10kVRSJY-3/5(1/5)
0.6/1kV(1.2)	4, 5, 3, 2, 1	4-6	0.6/1kVRSJ-4(5,3,2,1)/(-1)
		10-16	0.6/1kVRSJ-4(5,3,2,1)/0
		25-50	0.6/1kVRSJ-4(5,3,2,1)/1
		70-120	0.6/1kVRSJ-4(5,3,2,1)/2
		150-240	0.6/1kVRSJ-4(5,3,2,1)/3
		300-400	0.6/1kVRSJ-4(5,3,2,1)/4

WRSJG
Heat Shrink Anti-tracking Insulation Tube



- Made of cross linked polyolefin, inner coated with adhesive at both ends
- Used in Medium voltage cable terminations up to 36 kV
- Protecting against accidental flashover
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 100°C and fully recovered at 130°C
- Color: red

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness/mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
Cut Length Tube				
WRSJG-30/12	30	12	2.2	600-1200
WRSJG-35/14	35	14	2.3	600-1200
WRSJG-40/17	40	17	2.3	600-1200
WRSJG-50/22	50	22	2.4	600-1200
WRSJG-35/13	35	13	3.0	600-1200
WRSJG-40/15	40	15	3.0	600-1200
WRSJG-50/19	50	19	3.0	600-1200
WRSJG-55/24	55	24	3.2	600-1200
WRSJG-60/26	60	26	3.2	600-1200
WRSJG-70/29	70	29	3.2	600-1200
WRSJG-75/35	75	35	3.2	600-1200
WRSJG-80/36	80	36	3.2	600-1200
WRSJG-90/41	90	41	3.5	600-1200
WRSJG-100/45	100	45	3.5	600-1200

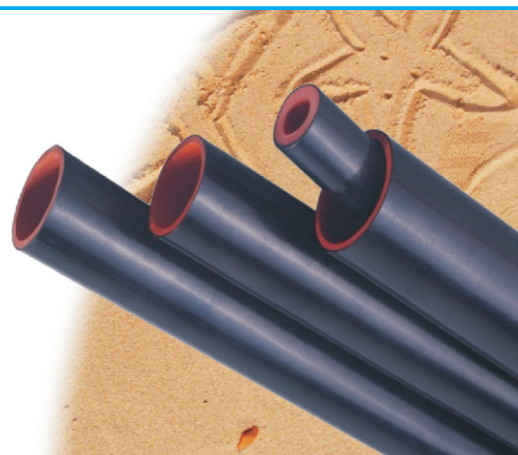
Remark: inner coated with adhesive at both ends, only for the length over 1000mm, other tubes below 1000mm coated at one end

	Continuous	Length	Tube	m/Spool
WRSJG-30/12	30	12	2.2	25
WRSJG-35/14	35	14	2.3	25
WRSJG-40/17	40	17	2.3	25
WRSJG-50/22	50	22	2.4	25
WRSJG-35/13	35	13	3.0	25
WRSJG-40/15	40	15	3.0	25
WRSJG-50/19	50	19	3.0	25
WRSJG-55/24	55	24	3.2	15
WRSJG-60/26	60	26	3.2	15
WRSJG-70/29	70	29	3.2	15
WRSJG-75/35	75	35	3.2	15
WRSJG-80/36	80	36	3.2	15
WRSJG-90/41	90	41	3.5	15
WRSJG-100/45	100	45	3.5	15

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥10MPa
Elongation at Break	ASTM-D-2671	≥400%
Tensile Strength after Aging	ASTM-D-2671	≥8MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥320% (130°C, 168 hrs)
Dielectric Strength	IEC 60243	≥20kV/mm
Tracking Resistance	ASTM-D-2303	Pass (3.75kV, 1 hr)
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω · cm
Dielectric Constant	ASTM-D-150	≤3.0
Water Absorption	ISO 62	≤0.5%
Copper Corrosion	ASTM-D-2671	No corrosion (130°C, 168 hrs)
Cold Bend	ASTM-D-2671	No cracking (-40°C, 4 hrs)

WDWT Heat Shrink Dual-wall Tube



- The red inner layer is made of insulation material to provide good insulation
- The black outer layer is made of semi-conductive material to provide electric shielding
- Suitable for applications in power cable joints up to 35 kV
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 100°C, and fully recovered at 130°C

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
WDWT-30/12	30	12	5.8	300-1000
WDWT-35/13	35	13	5.8	300-1000
WDWT-45/17	45	17	5.8	300-1000
WDWT-55/21	55	21	5.8	300-1000
WDWT-65/26	65	26	5.8	300-1000
WDWT-85/30	85	30	7.3	300-1000
WDWT-100/38	100	38	7.3	300-1000
WDWT-120/45	120	45	7.3	300-1000

Technical Data Inner Insulation Layer

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-638	≥12MPa
Elongation at Break	ASTM-D-638	≥400%
Tensile Strength after Aging	ASTM-D-2671	≥10MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥320% (130°C, 168hrs)
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω · cm
Dielectric Strength	IEC 60243	≥25kV/mm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%

Outer Semi-conductive Layer

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-638	≥10MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥8MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥240% (130°C, 168hrs)
Volume Resistivity	IEC 60093	10 ² ~10 ⁴ Ω · cm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%

WRSHJG Heat Shrink Insulation Tube



- Made of cross linked polyolefin
Used in cable joints up to 36 kV
- High insulation
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 100°C, and fully recovered at 130°C
- Color: red

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
WRSHJG-30/12	30	12	3.6	500-850
WRSHJG-35/14	35	14	3.8	500-850
WRSHJG-40/17	40	17	3.8	500-850
WRSHJG-45/18	45	18	3.8	500-850
WRSHJG-50/22	50	22	3.8	500-850
WRSHJG-55/25	55	25	3.8	500-850
WRSHJG-55/22	55	22	5.8	500-850
WRSHJG-60/25	60	25	5.8	500-850
WRSHJG-65/26	65	26	5.8	500-850
WRSHJG-70/29	70	29	5.8	500-850
WRSHJG-80/35	80	35	5.8	500-850
WRSHJG-85/38	85	38	5.8	500-850
WRSHJG-100/39	100	39	5.8	500-850
WRSHJG-120/42	120	42	5.8	500-850

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥12MPa
Elongation at Break	ASTM-D-2671	≥400%
Tensile Strength after Aging	ASTM-D-2671	≥10MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥250% (130°C, 168 hrs)
Dielectric Strength	IEC 60243	≥25kV/mm
Volume Resistivity	ASTM-D-2303	≥1×10 ¹⁴ Ω · cm
Dielectric Constant	IEC 60250	≤3.0
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%
Copper Corrosion	ASTM-D-2671	No corrosion (130°C, 168 hrs)
Cold Bend	ASTM-D-2671	No cracking (-40°C, 4 hrs)

WRSHG
Heat Shrink Protective Tube



- Made of cross linked polyolefin
- Providing outer protection for power cable joints
- Outstanding mechanical, electrical and chemical properties
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 100°C, and fully recovered at 130°C

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
Cut Length Tube				
WRSHG-10/5	10	5	1.2	275-1000
WRSHG-15/6	15	6	1.3	275-1000
WRSHG-20/8	20	8	1.7	275-1000
WRSHG-30/11	30	11	1.8	275-1000
WRSHG-35/13	35	13	2.0	275-1000
WRSHG-45/17	45	17	2.2	275-1000
WRSHG-50/22	50	22	2.5	800-1200
WRSHG-60/23	60	23	2.5	800-1200
WRSHG-80/29	80	29	2.8	800-1200
WRSHG-85/30	85	30	2.8	800-1200
WRSHG-100/39	100	39	3.1	800-1200
WRSHG-120/45	120	45	3.1	800-1200
WRSHG-140/49	140	49	3.5	800-1200
WRSHG-160/57	160	57	3.5	800-1200
WRSHG-180/61	180	61	4.0	800-1200
WRSHG-200/70	200	70	4.5	800-1200
WRSHG-230/72	230	72	4.5	800-1200
WRSHG-250/87	250	87	4.5	800-1200
WRSHG-300/100	300	100	4.5	800-1200
WRSHG-350/150	350	150	3.0	800-1200
WRSHG-400/170	400	170	3.0	800-1200
WRSHG-450/203	450	203	3.2	800-1200
WRSHG-500/203	500	203	3.2	800-1200

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	m/spool
	As Supplied (Min) /mm	After Recovered (Max) /mm		
Continuous Length Tube				
WRSHG-10/5	10	5	1.2	25
WRSHG-15/6	15	6	1.3	25
WRSHG-20/8	20	8	1.7	25
WRSHG-30/11	30	11	1.8	25
WRSHG-35/13	35	13	2.0	25
WRSHG-45/17	45	17	2.2	25
WRSHG-50/22	50	22	2.5	25
WRSHG-60/23	60	23	2.5	25
WRSHG-80/29	80	29	2.8	25
WRSHG-85/30	85	30	2.8	25
WRSHG-100/39	100	39	3.1	15
WRSHG-120/45	120	45	3.1	15
WRSHG-140/49	140	49	3.5	15
WRSHG-160/57	160	57	3.5	15

Remark: we can provide colorful (red, yellow, blue, green) productive tube diameter below 50mm.

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-638	≥12MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥10MPa (120°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥230% (120°C, 168hrs)
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω · cm
Dielectric Strength	IEC 60093	≥20kV/mm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%

WRSYL
Heat Shrink Stress Control Tube



- Made of cross linked polyolefin
- Providing effective electrical stress control for terminations and joints for XLPE cables and PILC cables up to 36 kV
- Continuous operation temperature: -40°C to 100°C
- Shrink temperature: start at 100°C, and fully recovered at 130°C
- Color: black

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
Cut Length Tube				
WRSYL-30/11	30	11	2.1	100-1200
WRSYL-35/14	35	14	2.1	100-1200
WRSYL-40/17	40	17	2.1	100-1200
WRSYL-45/20	45	20	2.1	100-1200
WRSYL-50/22	50	22	2.8	100-1200
WRSYL-55/24	55	24	3.3	100-1200
WRSYL-70/29	70	29	3.3	100-1200
WRSYL-80/29	80	29	3.3	100-1200
WRSYL-95/42	95	42	3.5	100-1200
WRSYL-100/43	100	43	3.5	100-1200
WRSYL-120/45	120	45	3.5	100-1200
Continuous Length Tube				
WRSYL-30/11	30	11	2.1	25
WRSYL-35/14	35	14	2.1	25
WRSYL-40/17	40	17	2.1	25
WRSYL-45/20	45	20	2.1	25
WRSYL-50/22	50	22	2.8	25
WRSYL-55/24	55	24	3.3	15
WRSYL-70/29	70	29	3.3	15
WRSYL-80/29	80	29	3.3	15
WRSYL-95/42	95	42	3.5	15
WRSYL-100/43	100	43	3.5	15
WRSYL-120/45	120	45	3.5	15

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-40°C to 100°C
Tensile Strength	ASTM-D-2671	≥10MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥8MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥240% (130°C, 168 hrs)
Dielectric Constant	IEC 60250	≥15
Volume Resistivity	IEC 60093	≥1×10 ⁸⁻¹⁰ Ω · cm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%

WRSBG
Heat Shrink Semi-conductive Tube



- Made of cross linked semi-conductive polymeric material
- Continuous operation temperature: -40°C to 100°C
- Shrink temperature: start at 110°C, and fully recovered at 130°C
- Color: black

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
Cut Length Tube				
WRSBG-45/18	45	18	2.4	400-1200
WRSBG-50/20	50	20	2.4	400-1200
WRSBG-55/23	55	23	2.4	400-1200
WRSBG-60/24	60	24	2.4	400-1200
WRSBG-65/25	65	25	2.4	400-1200
WRSBG-75/29	75	29	2.9	400-1200
WRSBG-90/30	90	30	2.9	400-1200
WRSBG-100/36	100	36	2.9	400-1200
WRSBG-120/37	120	37	2.9	400-1200
Continuous Length Tube				
WRSBG-45/18	45	18	2.4	25
WRSBG-50/20	50	20	2.4	25
WRSBG-55/23	55	23	2.4	25
WRSBG-60/24	60	24	2.4	25
WRSBG-65/25	65	25	2.4	25
WRSBG-75/29	75	29	2.9	25
WRSBG-90/30	90	30	2.9	25
WRSBG-100/36	100	36	2.9	15
WRSBG-120/37	120	37	2.9	15

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-40°C to 100°C
Tensile Strength	ASTM-D-2671	≥10MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥8MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥240% (130°C, 168 hrs)
Volume Resistivity	IEC 60093	10 ²⁻¹⁰⁴ Ω · cm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%

WRSYG Oil Barrier Tube



- Made of polyolefin.
- Mainly used in PILC cable accessories, offering oil resistance, insulation and sealing.

WMPG Heat Shrink Busbar Sleeve



- Made of cross linked polyolefin
- High resistance to tracking, aging and erosion
- Used to offer insulation protection for busbar in switchgear and substation
- Can be supplied in continuous length
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 110°C, and fully recovered at 130°C
- Color: yellow, red, green, blue, black

Selection Table

Product No.	Inner Diameter		After Recovered Wall Thickness /mm (±10%)	Standard Length /mm
	As Supplied (Min) /mm	After Recovered (Max) /mm		
WRSYG-20/8	20	8	1.9	300-1000
WRSYG-30/11	30	11	2.1	300-1000
WRSYG-35/12	35	12	2.3	300-1000
WRSYG-40/17	40	17	3.8	300-1000
WRSYG-30/12	30	12	3.8	300-1000
WRSYG-40/14	40	14	3.8	300-1000
WRSYG-50/22	50	22	3.8	300-1000
WRSYG-60/23	60	23	3.8	300-1000
WRSYG-75/29	75	29	2.9	300-1000
WRSYG-90/85	85	30	2.9	300-1000
WRSYG-100/39	100	39	3.1	300-1000
WRSYG-120/45	120	45	3.1	300-1000

Selection Table (35 kV Heat Shrink Busbar Sleeve)

Product No.	As Supplied/mm		After Recovered /mm		Standard Length /mm	Suitable for Rectangular Busbar/mm	Suitable for Circular Busbar/mm
	ID (Min)	Wall Thickness	ID (Max)	Wall Thickness (±10%)			
Φ25	25	2.0	10	4.7	1000	25	15
Φ30	30	2.0	15	4.7	1000	30	20
Φ40	40	2.0	17	4.7	1000	40	25
Φ50	50	2.0	20	4.9	1000	50	25
Φ65	65	2.0	27	5.2	1000	65	30
Φ75	75	2.0	30	5.2	1000	75	35
Φ85	85	2.0	32	5.2	1000	85	40
Φ100	100	2.0	39	5.2	1000	100	75
Φ120	120	2.0	50	5.2	1000	120	85
Φ150	150	2.0	60	5.2	1000	150	105
Φ180	180	2.2	70	5.5	1000	180	120
Φ210	210	2.1	82	5.5	1000	210	130

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-40°C to 100°C
Tensile Strength	ASTM-D-2671	≥10MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥8MPa (120°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥240% (120°C, 168 hrs)
Oil Resistance (Tensile Strength after Dipping)	ASTM-D-2671 70°C cable oil /168hrs	≥8MPa
Oil Resistance (Elongation at Break after Dipping)	ASTM-D-2671 70°C cable oil /168hrs	≥240%
Volume Resistivity	IEC 60093	≥10 ¹⁴ Ω · cm
Dielectric Strength	IEC 60243	≥20 kV/mm
Water Absorption	ISO 62	≤ 0.5%

Selection Table (20 kV heat shrink busbar sleeve)

Product No.	As Supplied/mm		After Recovered /mm		Standard Length /mm	Suitable for Rectangular Busbar/mm	Suitable for Circular Busbar/mm
	ID (Min)	Wall Thickness	ID (Max)	Wall Thickness (±10%)			
Φ30	30	1.6	12	3.7	1000	30	20
Φ40	40	1.6	16	3.7	1000	40	25
Φ50	50	1.6	20	3.7	1000	50	30
Φ60	60	1.6	25	3.7	1000	60	40
Φ70	70	1.6	30	3.7	1000	70	45
Φ85	85	1.5	32	3.7	1000	85	55
Φ100	100	1.5	40	3.7	1000	100	65
Φ120	120	1.5	50	3.7	1000	120	80
Φ140	140	1.5	56	3.7	1000	140	100
Φ160	160	1.5	64	3.7	1000	160	110
Φ180	180	1.5	72	3.7	1000	180	130
Φ200	200	1.5	82	3.7	1000	200	140
Φ220	220	1.5	88	3.7	1000	220	150

Selection Table (10 kV heat shrink busbar sleeve)

Product No.	As Supplied/mm		After Recovered / mm		Standard Length /mm	Suitable for Rectangular Busbar/mm	Suitable for Circular Busbar/mm
	ID (Min)	Wall Thickness	ID (Max)	Wall Thickness (±10%)			
Φ20	20	1.2	8	2.5	1000	20	15
Φ25	25	1.2	11	2.5	1000	25	15
Φ30	30	1.2	13	2.5	1000	30	20
Φ40	40	1.2	16	2.5	1000	40	25
Φ50	50	1.3	18	2.7	1000	50	30
Φ65	65	1.3	28	2.7	1000	65	40
Φ75	75	1.3	31	2.7	1000	75	50
Φ85	85	1.3	36	2.7	1000	85	55
Φ100	100	1.3	42	2.7	1000	100	75
Φ120	120	1.3	48	2.7	1000	120	85
Φ150	150	1.3	62	2.7	1000	150	105
Φ180	180	1.3	73	2.7	1000	180	120
Φ210	210	1.3	84	2.7	1000	210	130
Φ230	230	1.2	85	2.7	1000	230	135
Φ250	250	1.5	102	3.7	1000	250	140
Φ300	300	1.6	110	3.9	1000	300	160
Φ350	350	1.2	142	3.0	1000	350	200
Φ400	400	1.2	160	3.0	1000	400	260
Φ450	450	1.4	193	3.2	1000	450	300
Φ500	500	1.2	193	3.2	1000	500	330

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥10MPa
Elongation at Break	ASTM-D-2671	≥400%
Tensile Strength after Aging	ASTM-D-2671	≥8MPa (130°C,168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥320% (130°C,168 hrs)
Dielectric Strength	IEC 60243	≥25kV/mm
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω · cm
Dielectric Constant	IEC 250	≤3.0
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%
Flammability (Oxygen Index)	IEC 4589	≥28
Copper Corrosion	ASTM-D-2671	No corrosion (130°C,168 hrs)
Cold Bend	ASTM-D-2671	No cracking (-40°C, 4 hrs)

WRSZT
Heat Shrink Breakout

- Made of cross linked polyolefin, inner coated with adhesive at the ends
- Provide sealing protection over multi-core cable crutch, including 2-, 3-, 4-, 5-core breakouts
- Meeting with varieties of configuration requirements
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 110°C, and fully recovered at 135°C

Technical Data

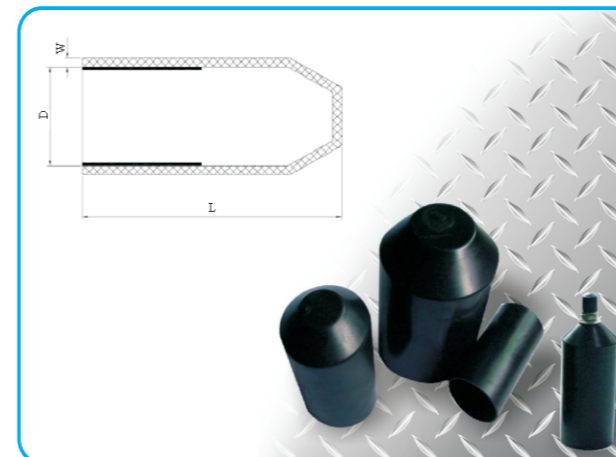
Property	Test Method	Standard Value		
		Insulated Breakout	Oil Barrier Breakout	Conductive Breakout
Operation Temperature	IEC 216	-45°C to 105°C	-45°C to 105°C	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥12MPa	≥11MPa	≥12MPa
Elongation at Break (120°C,168 hrs)	ASTM-D-2671	≥300%	≥300%	≥300%
Tensile Strength after Aging (120°C,168 hrs)	ASTM-D-2671	≥10MPa	≥9MPa	≥10MPa
Elongation at Break after Aging	ASTM-D-2671	≥230%	≥230%	≥230%
Tensile Strength after Dipping	ASTM-D-2671	—	≥10MPa	—
Elongation at Break after Dipping	ASTM-D-2671	—	≥230%	—
Dielectric Strength	IEC 60243	≥20kV/mm	≥20kV/mm	—
Water Absorption	ISO 62	≤0.5%	≤0.5%	≤0.5%
Volume Resistivity	IEC 60093	≥10 ¹⁴ Ω.cm	≥10 ¹⁴ Ω.cm	10 ¹² ~10 ¹⁴ Ω · cm

Selection Table

Product No.	Base Diameter		Finger Diameter		Full Length (± 10%) /mm	Finger Length (± 10%) /mm	
	As Supplied (Min) /mm	After Recovered (Max) /mm	As Supplied (Min) /mm	After Recovered (Max) /mm			
2 cores	WRSZT2-24/12 (0#)	24	12	12	5	130	55
	WRSZT2-38/16 (1#)	38	16	20	7	140	60
	WRSZT2-48/18 (2#)	48	18	25	9	145	60
	WRSZT2-60/24 (3#)	60	24	35	11	135	55
	WRSZT2-72/25 (4#)	72	25	40	12	140	60
3 cores	WRSZT3-24/16 (-2#)	24	16	11	5	140	50
	WRSZT3-48/22 (-1#)	48	22	18	7	170	55
	WRSZT3-60/28 (0#)	60	28	25	8	175	55
	WRSZT3-70/36 (1#)*☆	70	36	30	13	210	55
	WRSZT3-85/45 (2#)*☆	85	45	40	16	225	60
	WRSZT3-110/53 (3#)*☆	110	53	42	19	250	85
	WRSZT3-125/63 (4#)*☆	125	63	58	25	245	95
	WRSZT3-140/63 (5#)	140	63	65	25	245	90
4 cores	WRSZT4-38/18 (0#)	38	18	10	5	130	45
	WRSZT4-50/24 (1#)*☆	50	24	16	7	135	45
	WRSZT4-70/32 (2#)*☆	70	32	23	9	180	65
	WRSZT4-80/44 (3#)*☆	80	44	30	13	210	75
	WRSZT4-90/44 (4#)*☆	90	44	35	13	210	75
5 cores	WRSZT5-42/21 (0#)	42	21	12	5	155	55
	WRSZT5-57/29 (1#)	57	29	16	7	170	60
	WRSZT5-70/38 (2#)	70	38	23	9	170	55
	WRSZT5-90/50 (3#)	90	50	30	13	180	60
	WRSZT5-120/47 (4#)	120	47	39	14	205	80

Remark: * means conductive breakout general standing for three cores breakout
 ☆ means PILC breakout general standing for three cores or four cores breakout

**WRSFM
Heat Shrink Cable End Cap**



- 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 of cable ends
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 110°C, and fully recovered at 130°C
- Shrink ratio: 2:1

Selection Table

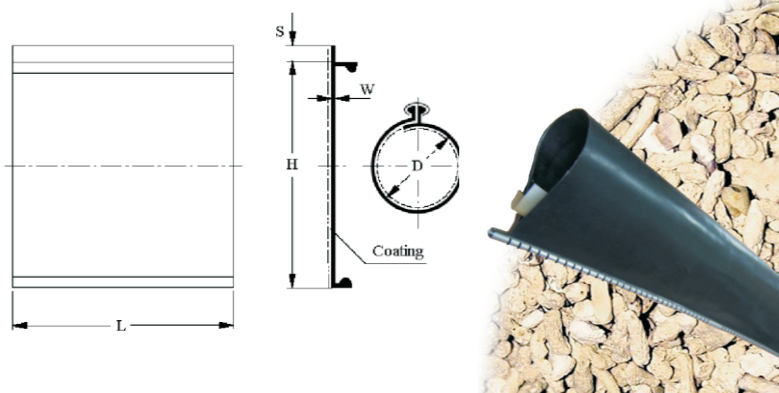
Product No.	D/ mm		L/ mm(±10%)	W/ mm
	As Supplied (Min)	After Recovered (Max)		After Recovered (±10%)
WRSFM-11/5.5	11	5.5	30	1.9
WRSFM-16/8	16	8	70	2.5
WRSFM-20/8	20	8	68	2.5
WRSFM-25/11	25	11	80	2.5
WRSFM-30/17	30	17	90	2.5
WRSFM-35/17	35	17	90	2.5
WRSFM-40/17	40	17	90	2.5
WRSFM-55/26	55	26	125	2.5
WRSFM-75/30	75	30	145	3.2
WRSFM-100/40	100	40	140	4.0
WRSFM-120/57	120	57	150	4.0
WRSFM-140/63	140	63	180	4.0
WRSFM-200/95	200	95	270	4.0
WRSFM-250/100	250	100	270	4.0

Remark: The end cap coated with hot-melt adhesive comes in two forms: plane adhesive and spiral adhesive, which can meet different customer needs.

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥12MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥10MPa (130°C,168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥230% (130°C,168 hrs)
Dielectric Strength	IEC 60243	≥20kV/mm
Stress Cracking Resistance	ASTM-D-1693	No cracking
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω·cm
Fungus and Decay Resistance	ISO 846	Pass
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%

WRSXP Heat Shrink Repair Sleeve



- Providing fast and permanent repair and sealing protection for power cables
- High tensile strength, abrasion and corrosion resistance
- Suitable for applications in cable joints and terminations
- Continuous operation temperature: -45°C to 105°C
- Shrink temperature: start at 100°C, and fully recovered at 130°C

Selection Table

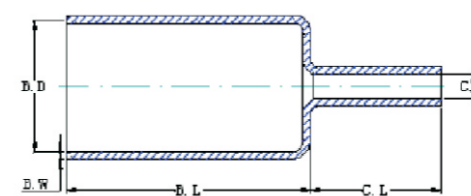
Product No.	Inner Diameter		After Recovered Wall Thickness (±10%) Nom. /mm	Standard Length /mm
	As Supplied (Min)/mm	After Recovered (Max) /mm		
WRSXP-30/12	30	12	3.8	450-1000
WRSXP-40/18	40	18	3.8	450-1000
WRSXP-50/18	50	18	3.8	450-1000
WRSXP-60 (65) /22	60 (65)	22	3.8	450-1000
WRSXP-80 (85) /35	80 (85)	35	3.8	450-1000
WRSXP-100/35	100	35	3.8	450-1000
WRSXP-120/40	120	40	4.0	450-1000
WRSXP-150 (160) /50	150 (160)	50	4.0	450-1000
WRSXP-170/55	170	55	3.8	450-1000
WRSXP-195/70	195	70	2.0	450-1000
WRSXP-170/55*	170	55	3.8	400-600
WRSXP-195/70*	195	70	2.0	400-600
WRSXP-240/90*	240	90	2.0	400-600
WRSXP-290/115*	290	115	2.0	400-600

Remark: * means heat shrink repair sleeve without coated hot-melt adhesive.

Technical Data

Property	Test Method	Standard Value
Tensile Strength	ASTM-D-2671	≥17MPa
Elongation at Break	ASTM-D-2671	≥500%
Tensile Strength after Aging	ASTM-D-2671	≥14MPa (130°C,168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥400% (130°C,168 hrs)
Dielectric Strength	IEC 60243	≥20 kV/mm
Volume Resistivity	IEC 60093	≥10 ¹⁴ Ω · cm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Water Absorption	ISO 62	≤0.5%
Eccentricity	ASTM-D-2671	≤30%

AC Heat Shrink Anode Cap



- Made of cross linked polyolefin, inner coated with adhesive
- Sealing and protecting the critical connection between lead wire and anode
- Ideal to avoid premature system failure due to loss of the wire to anode termination
- Continuous operation temperature: -45°C to 105°C

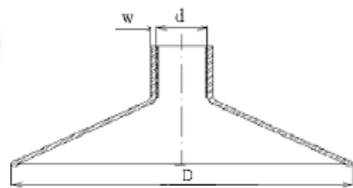
Selection Table

Product No.	B.D/mm		C.D/mm		B.L (±10%) /mm	C.L (±10%) /mm	B.W (±10%) /mm
	As Supplied (Min)	After Recovered (Max)	As Supplied (Min)	After Recovered (Max)			
AC-2#	65	48	12.5	6.5	76	78	2.4
AC-3B	86	62	12.5	6.5	102	78	2.7
AC-4#	120	100	12.5	6.5	102	78	2.4
AC-4B	112	87	12.5	6.5	102	78	2.4
AC-Φ50	50	30	18.0	6.5	45	100	3.2
AC-Φ86	86	45	18.0	6.5	150	80	3.2
AC-Φ112	112	60	18.0	6.5	150	80	3.2

Technical Data

Property	Test Method	Standard Value
Tensile Strength	ASTM-D-2671	≥12MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥10MPa (130°C,168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥240%(130°C,168 hrs)
Dielectric Strength	IEC 60243	≥20 kV/mm
Volume Resistivity	IEC 60093	≥10 ¹⁴ Ω · cm
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Water Absorption	ISO 62	≤0.1%
Eccentricity	ASTM-D-2671	≤30%
Stress Cracking Resistance	ASTM-D-1693	No cracking
Fungus and Decay Resistance	ISO 846	Pass

WRSSQ
Heat Shrink Anti-tracking Rain Shed



- Made of polyolefin, coated with anti-tracking adhesive
- High creepage resistance and anti-tracking property
- Shaped components to meet a range of requirements
- Continuous operation temperature: -45°C to 105°C

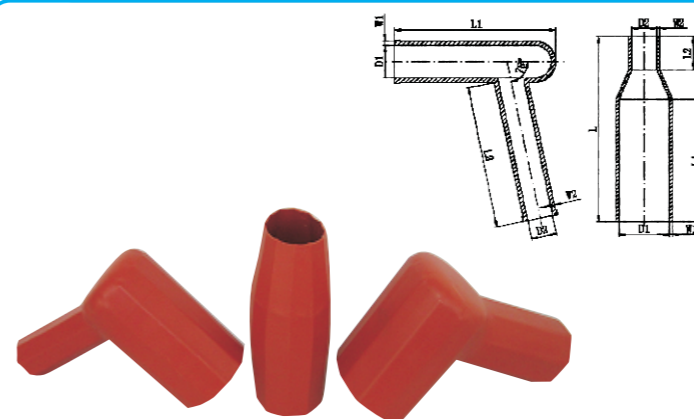
Selection Table

Product No.	As Supplied d/mm	After Recovered d/mm	D/mm	W/mm(±10%)
WRSSQ-35/16	35	16	105	2.8
WRSSQ-40/22	40	22	105	2.6
WRSSQ-50/22	50	22	105	2.6
WRSSQ-60/30	60	30	140	4.0
WRSSQ-70/30	70	30	140	4.0

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥12MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥10MPa (130°C,168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥240% (130°C,168 hrs)
Dielectric Strength	IEC 60243	≥20kV/mm
Tracking Resistance	ASTM-D-2303	Pass (3.75kV, 1 hr)
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω·cm
Dielectric Constant	IEC 60250	≤3.0
Water Absorption	ISO 62	≤0.5%
Eccentricity	ASTM-D-2671	≤30%
Cold Bend	ASTM-D-2671	No cracking (-40°C,4 hrs)

WRSJX
Heat Shrink Right Angle/Straight Cable Boot



- Made of polyolefin, inner coated with hot-melt adhesive at the ends
- Excellent insulation, flame retardant, thermal stability, etc
- Used to protect cable against flashover or surges induce in switchgear and transformer
- Shaped components to meet a range of requirements
- Continuous operation temperature: -45°C to 105°C

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-638	≥10MPa
Elongation at Break	ASTM-D-638	≥300%
Tensile Strength after Aging	ASTM-D-638	≥8MPa(130°C,168 hrs)
Elongation at Break after Aging	ASTM-D-638	≥240% (130°C,168 hrs)
Dielectric Strength	IEC 60243	≥25kV/mm
Tracking Resistance	ASTM-D-2303	Pass (3.75KV,1hr)
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω·cm
Dielectric Constant	ASTM-D-150	≤3.0
Longitudinal Shrinkage	ASTM-D-2671	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water Absorption	ISO 62	≤0.5%
Flammability (Oxygen Index)	IEC 4589	≥25
Copper Corrosion	ASTM-D-2671	No corrosion (130°C,168 hrs)
Cold Bend	ASTM-D-2671	No cracking (-40°C,4 hrs)
Heat Shock	ASTM-D-2671	No cracking or flowing(160°C,4 hrs)

Selection Table

Product No.	As Supplied/mm		After Recovered/mm						
	D1 (Min)	D2 (Min)	D1 (Max)	D2 (Max)	L1 (Nom.)	L2 (±10%)	L (±10%)	W1 (±10%)	W2 (±10%)
Right Angle Boot									
WRSJX-R1	80	35	36	18	170	125	--	4.2	3.5
WRSJX-R2	80	50	36	18	170	125	--	3.8	3.5
WRSJX-R3	80	50	36	27	160	140	--	3.8	3.5
WRSJX-R4	95	70	38	28	160	140	--	4.2	4.8
WRSJX-R5	145	68	72	34	215	140	--	4.2	4.2
Straight Boot									
WRSJX-S1	80	34	32	19	145	30	220	3.2	3.2
WRSJX-S2	80	58	32	19	145	30	220	3.2	3.2
WRSJX-S3	140	90	65	33	145	30	220	4.0	4.0

WRSJB
Heat Shrink Busbar Cover



- Widely used to protect complex busbar connections where tube products cannot be applied
- Offering tailor-made solutions against specific requirements
- Made of cross linked polyolefin
- Voltage class: 1kV, 10 kV, 35 kV
- Color: red, yellow, green, black

Selection Table

No. (A×B)	I Type			T Type			L Type		
	L	W	H	L	W	H	L	W	H
30×8	95	35	50	105	35	60	70	35	60
40×8	125	45	50	140	45	60	75	45	55
50×8	135	55	55	155	55	65	90	55	65
60×8	165	65	75	165	65	75	100	65	75
80×10	185	85	75	195	85	75	130	85	75
100×10	220	105	75	215	105	75	140	105	75
120×10	235	125	75	245	125	75	165	125	75
150×10	260	155	75	285	155	75	195	155	75

Remark:

L=length of cover; W=width of cover; H=height of cover

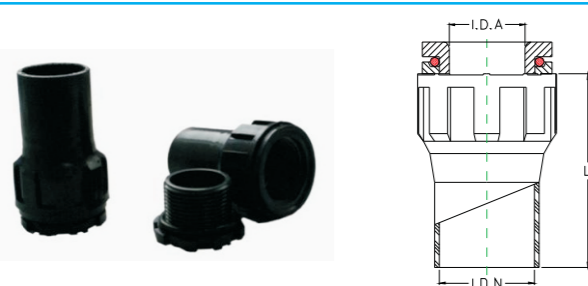
A=width of busbar; B=thickness of busbar

(All dimensions are in mm)

*According to customer drawings the special products for a variety of inlet and outlet of transformers, fuses, switches, surge arresters and other protective cover to are available.

WRSLT
Heat Shrink Boot Adapter

WOER heat-shrinkable boot adapters provide a watertight and fume tight seal where cables enter connection boxes, bulkheads, or other enclosures. The standard adapter for thin-wall enclosures consists of a three-part assembly—a rigid plastic nut, O-ring, and heat-shrinkable boot adapter.



- The mechanical tightening of the 2 plastic mating parts & the compression of the "O" ring creates the water/air sealing at the cabinet entry.
- Each WRSLT size is suitable for several different cable diameters.
- Continuous operation temperature: -55°C to 90°C.
- Sealing multi-cable openings.
- Inner wall of smaller end coated with hot-melt adhesive to provide a sealing performance.

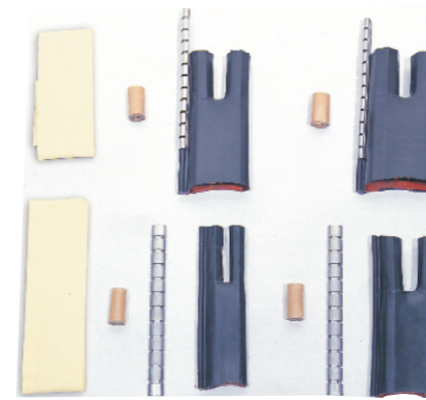
Selection Table

Part Number	After Recovered Length (L)(mm)	After Expanded I.D. Nose (Min) ^① (mm)	After Recovered I.D. Nose (Max) ^① (mm)	Adapter I.D.(mm)	Drill Size ^② (mm)
WRSLT-4	112	45	19	41	51

Remark: ①Smaller end (head recoverable)

②Required hole diameter for this part

WRSKT
2-core Clip-on Breakout



- Made of polyolefin, with a stainless steel channel sliding over the rail
- Mostly used to provide sealing and protection for bifurcated cable, especially for the branch cable lapping on the main cable

Y-type Heat Shrink Tube



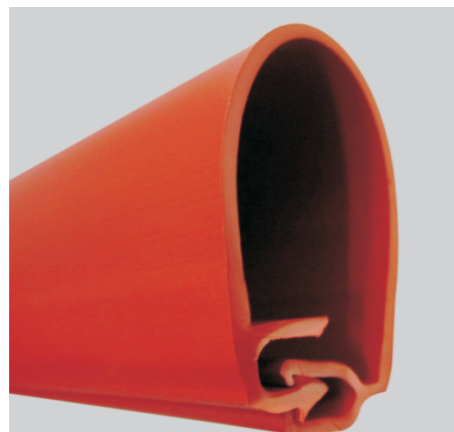
- Made of polyolefin.
- Mostly used to provide sealing and protection for bifurcated cable, especially for the branch cable lapping on the main cable

WRSZX
Straight Boot



- Made of polyolefin
- Offering good mechanical, insulation and sealing protection
- This family of boot has no lip.
- Simple and fast installation

COLD APPLIED CABLE ACCESSORIES



Silicone Rubber Protective Cover



- Made of silicone rubber
- Used to provide protection for various electrical connections
- Offering tailor-made solutions against specific requirements
- Voltage class: 10kV

Selection Table

No.	Description	Color
WBH-BY	Protective Cover Series for Transformer	Red, Green, Yellow, Black
WBH-BL	Protective Cover Series for Surge Arrester	Red, Green, Yellow, Black
WBH-DL	Protective Cover Series for Fuses	Red, Green, Yellow, Black
WBH-GL	Protective Cover Series for Isolation Switch	Red, Green, Yellow, Black
WBH-ZK	Protective Cover Series for Vacuum Switch	Red, Green, Yellow, Black
WBH-JL	Protective Cover Series for Dose Box	Red, Green, Yellow, Black
WBH-NJ	Protective Cover for Strain Clamp	Red, Green, Yellow, Gray

WSKG Silicone Rubber Overhead Line Cover



Description

The silicone rubber overhead line cover is our patented product. It is made of silicone rubber which is highly resistant to aging, erosion and corona. It can provide protection against electrical outages caused by incidental contact from tree branches or wildlife.

Feature

- Made of silicone rubber
- High resistance to aging and erosion
- Providing insulation for catenaries, droppers and conductors against contact from trees or wildlife
- Simple and fast installation, widely used in emergency repairs or temporarily insulation protection of equipment

Selection Table

Product Size/mm	Φ12	Φ15.6	Φ18	Φ20	Φ24.2	Φ30	Φ32	Φ35	Φ39.8
Unit Weight (kg/m)	0.24	0.31	0.36	0.42	0.48	0.65	0.71	0.84	1.05
Conductor Diameter/mm	7~11	11~14	14~16	16~18	18~23	23~28	28~30	30~33	33~37
Voltage	≤10kV	≤35kV	≤110kV	≤220kV					
Thickness	2.3mm	2.3-3.0mm	4.0-6.0mm	6.0-8.0mm					

WRKG
Overhead Line Cover



Description

The overhead line cover is a cold-applied wraparound cover that provides insulation protection for overhead bare conductors and busbar. It can help prevent electrical outages caused by incidental contact from tree branches or wildlife.

Feature

- Made of cross linked polyolefin
- Simple and fast wraparound installation
- Built-in creepage fitting with longer creepage distance and better performance
- High resistance to aging and erosion
- Superior UV and abrasion resistance
- New product sealed with adhesive is available for 25kV
- Voltage class: 15 kV, 25 kV

WCAB
Cold Applied Insulation Boot



Description

Woer elastomeric insulating boots are molded parts which fit over the connection between the cable lug and the inline or right-angled bushing to improve phase-to-phase and phase-to-ground insulation. They are used in switchgears and transformers where the clearances are insufficient for normal operation, or to protect against flashover rodents or high humidity.

Selection Table

Product No.	Conductor Diameter/mm	Conductor Cross Section/mm ²	Roll of Length/m
WRKG-1	Φ14	up to 70	15
WRKG-2	Φ18	up to 185	15
WRKG-3	Φ23	up to 240	15
WRKG-4	Φ31	up to 400	15
WRKG-5	Φ38	up to 800	15

WCAB
Cold Applied Insulation Boot



Features

- Made of silicone rubber
- Collar is optional for use where the bushing size is smaller
- Offering tailor-made solutions against specific requirements (size, color)
- Connection can be energized immediately after installation
- Excellent tracking and erosion resistance
- Removable and re-installable
- Fast and simple installation
- Unlimited shelf life

Technical Data

Property	Test Method	Standard Value
Operation Temperature	IEC 216	-45°C to 105°C
Tensile Strength	ASTM-D-2671	≥13MPa
Elongation at Break	ASTM-D-2671	≥300%
Tensile Strength after Aging	ASTM-D-2671	≥11MPa (130°C, 168 hrs)
Elongation at Break after Aging	ASTM-D-2671	≥250% (130°C, 168hrs)
Volume Resistivity	IEC 60093	≥1×10 ¹⁴ Ω · cm
Dielectric Strength	IEC 60243	≥20kV/mm

Technical Data

Maximum System Voltage	17.5kV
Basic Impulse Level	95kV
Collar Size	27mm
Bushing Diameter	31-45mm
Bushing Types	250A/630A
Cable Cross Section	35-400mm ²



KEMA REPORTS

We have got KEMA report for these products as following:

- Type test certificate for 8.7/15KV cold shrink indoor termination
- Type test report for 8.7/15KV cold shrink joint
- Type test report for 19/33KV cold shrink indoor termination
- Type test report for 19/33KV cold shrink outdoor termination
- Type test report for 19/33KV cold shrink joint
- Type test report for 8.7/15KV heat shrink outdoor termination
- Type test report for 8.7/15KV heat shrink joint

