

STOCK NO. : 002130

# **Welcome to WOER- Leading in Heat Shrink Technology**

**Shenzhen WOER Heat Shrinkable Material Co, . Ltd**

**[Http://www.woer.com](http://www.woer.com)**

## **WOER- A Global Success**

Woer provides electrical and mechanical insulation solutions for the Automotive,Electrical/Utility,Electronics and Communications markets.Founded in 1998, Woer has emerged to become one of the largest heat shrink manufacturers in the world.

Woer is the complete source for heat shrink products and related technology. Our product offering includes polyolefin, fluoropolymer,elastomer and PVC heat shrink based materials in thin,medium and heavy wall tubing as well as heat shrink accessories and equipment. New products are continuously being developed to meet industry requiremnts. Moreover, a commitment to develop unique solutions for customer applications has earned Woer a reputation for excellence in customer satisfaction.

Manufacturing & Distribution

Longgang

Xili

Jintan

Research&Development

Longgang

Xili

Jintan

### **Quality Assurance/Environmental Protection**

Woer is committed to quality all products in accordance with ISO9001, ISO/TS 16949,ISO 14001. Copies of our certification are available upon request.

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## Single Wall Products

Single Wall heat shrinkable tubing is used in the electronics, automotive, military & aerospace sectors in a variety of applications, including:

- Mechanical Protection
- Abrasion Protection
- Strain Relief
- Moisture Protection
- Cable Insulation
- Marking & Bundling of electronic components

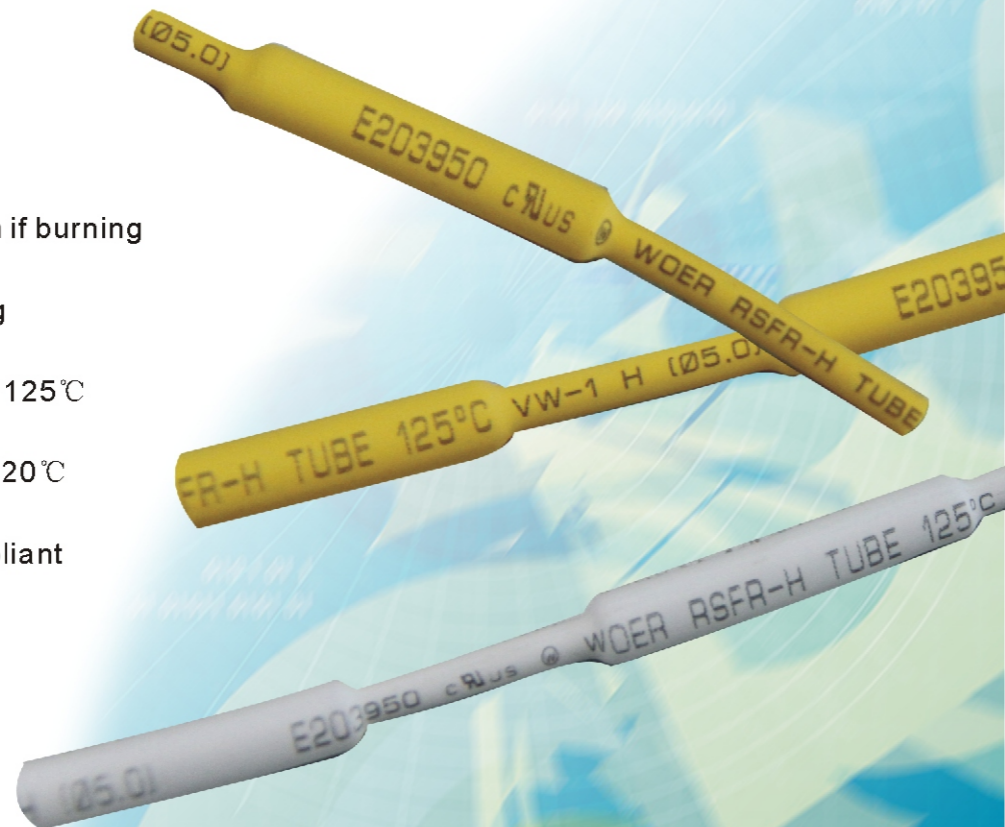
# W-1-H(RSFR-H)

Zero halogen,flexible  
heat shrink tubing



## Features

- Flexible
- Zero halogen
- Flame retardant
- low smoke generation if burning
- Continuous Operating
- Temperature:-45°C to 125°C
- Shrink Temperature:120°C
- RoHS and Sony compliant



## Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm	SPOOL LENGTH M/spool
3/64	0.8	1.1±0.2	0.50	0.22	200
1/16	1.0	1.5±0.2	0.65	0.28	200
	1.5	2.0±0.2	0.85	0.32	200
3/32	2.0	2.5±0.2	1.00	0.35	200
	2.5	3.0±0.2	1.30	0.38	200
1/8	3.0	3.5±0.2	1.50	0.40	200
	3.5	4.0±0.2	1.80	0.42	200
	4.0	4.5±0.2	2.00	0.45	200
3/16	4.5	5.0±0.2	2.30	0.50	200
	5.0	5.5±0.2	2.5	0.55	100
1/4	6.0	6.5±0.2	3.0	0.55	100
5/16	7.0	7.5±0.3	3.5	0.55	100
	8.0	8.5±0.3	4.0	0.60	100
3/8	9.0	9.5±0.3	4.5	0.60	100
	10.0	10.5±0.3	5.0	0.60	100
	11.0	11.5±0.3	5.5	0.60	100
1/2	12.0	12.5±0.3	6.0	0.60	100
	13.0	13.5±0.3	6.5	0.65	100
	14.0	14.5±0.3	7.0	0.65	100
5/8	15.0	15.5±0.4	7.5	0.70	100
	16.0	16.5±0.4	8.0	0.70	100
	17.0	17.5±0.4	8.5	0.70	100
3/4	18.0	19.0±0.5	9.0	0.80	100
	20.0	21.0±0.5	10.0	0.80	100
	22.0	23.0±0.5	11.0	0.80	100
1	25.0	26.0±0.5	12.5	0.90	50
	28.0	29.0±0.5	14.0	0.90	50
1-1/4	30.0	31.5±1.0	15.0	0.95	50
	35.0	36.5±1.0	17.5	1.00	50
1-1/2	40.0	41.5±1.0	20.0	1.00	50
	45.0	46.5±1.0	22.5	1.00	25
2	50.0	>50	25.0	1.00	25
	60.0	>60	31.0	1.30	25
	70.0	>70	36.0	1.30	25
3	80.0	>80	41.0	1.46	25
	90.0	>90	46.0	1.46	25
4	100.0	>100	51.0	1.46	25
5	120.0	>120	61.0	1.56	25
6	150.0	>150	76.0	1.56	25
7	180.0	>180	91.0	1.56	25

## Technical Data

### Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D2671	10.4MPa
Elongation (%)	ASTM D2671	200
Tensile Strength after Heat aging	UL 224 158°C X168hrs	≥7.3
Elongation after Heat aging	UL 224 158°C X168hrs	≥100
Heat shock	UL 224 250°C X 4hrs	NO dripping NO cracking

### Electrical

Property	Test Method	Typical Performance
Dielectric Strength	IEC 243	≥15kv/mm
Volume Resistivity	IEC 93	≥1×10 <sup>14</sup> Ω□cm

### Chemical

Property	Test Method	Typical Performance
Corrosion Action	UL 224 158°C X168hrs	PASS
Copper Compatibility	UL 224 158°C X168hrs	PASS

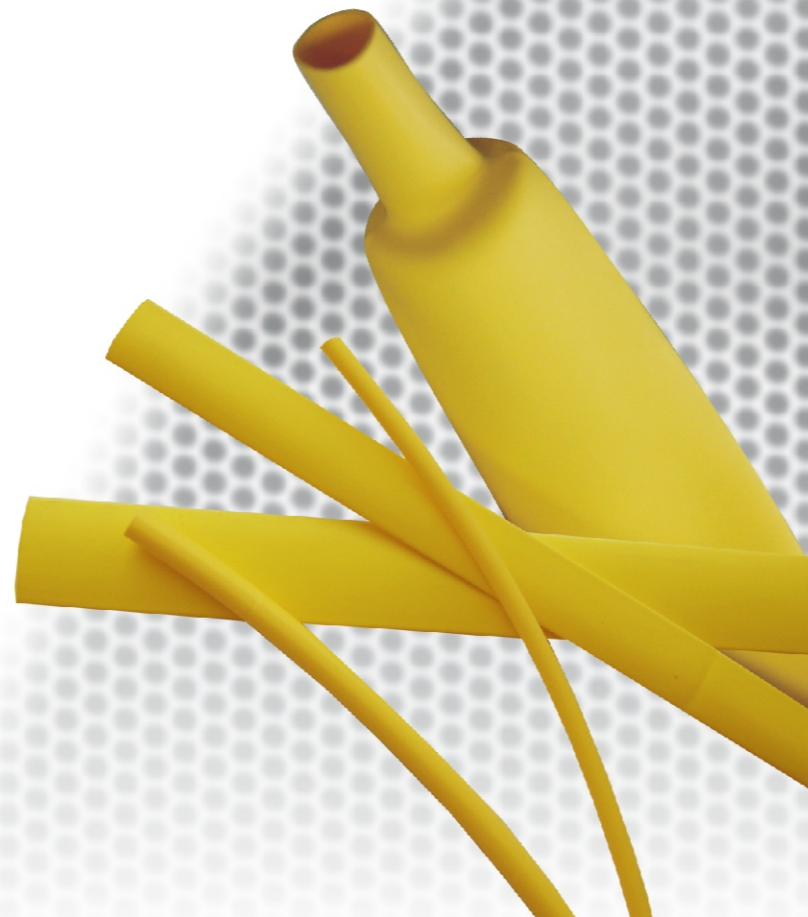
# W-1-HCB

Ultra thin wall Zero halogen,flexible heat shrink tubing.



## Features

- Ultra thin wall
- Flexible
- Zero halogen
- Flame retardant
- low smoke generation if burning
- Continuous Operating  
Temperature:-45°C to 125°C
- Shrink Temperature:120°C
- RoHS and Sony compliant



## Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm	SPOOL LENGTH M/spool
1/16	1.0	1.4±0.2	0.65	0.20	200
	1.5	1.9±0.2	0.85	0.20	200
3/32	2.0	2.4±0.2	1.00	0.22	200
	2.5	2.9±0.2	1.30	0.25	200
1/8	3.0	3.4±0.2	1.50	0.28	200
	3.5	3.9±0.2	1.80	0.28	200
	4.0	4.4±0.2	2.00	0.30	200
3/16	4.5	4.9±0.2	2.30	0.30	200
	5.0	5.5±0.2	2.5	0.32	100
1/4	6.0	6.5±0.2	3.0	0.32	100
5/16	7.0	7.5±0.3	3.5	0.32	100
	8.0	8.5±0.3	4.0	0.32	100
3/8	9.0	9.5±0.3	4.5	0.35	100
	10.0	10.5±0.3	5.0	0.35	100
	11.0	11.5±0.3	5.5	0.40	100
1/2	12.0	12.5±0.3	6.0	0.40	100
	13.0	13.5±0.3	6.5	0.40	100
	14.0	14.5±0.3	7.0	0.40	100
	15.0	15.5±0.4	7.5	0.40	100
5/8	16.0	16.5±0.4	8.0	0.40	100
	17.0	17.5±0.4	8.5	0.40	100
	18.0	18.5±0.4	9.0	0.42	100
3/4	20.0	20.5±0.5	10.0	0.45	100
	22.0	22.5±0.5	11.0	0.45	100
	25.0	25.5±0.5	12.5	0.45	50

## Technical Data

### Physical

Property	Test Method	Typical Performance
Tensile Strength	STM D2671	10.4MPa
Elongation(%)	ASTM D2671	200
Tensile Strength after Heat aging	UL 224 158°C X168hrs	≥7.3
Elongation after Heat aging	UL 224 158°C X168hrs	≥100
Heat shock	UL 224 250°C X 4hrs	NO dripping NO cracking

### Electrical

Property	Test Method	Typical Performance
DielectricStrength	IEC 243	≥15kV/mm
Volume Resistivity	IEC 93	≥1×10 <sup>14</sup> Ω□cm

### Chemical

Property	Test Method	Typical Performance
Corrosion Action	UL 224 158°C X168hrs	PASS
Copper Compatibility	UL 224 158°C X168hrs	PASS

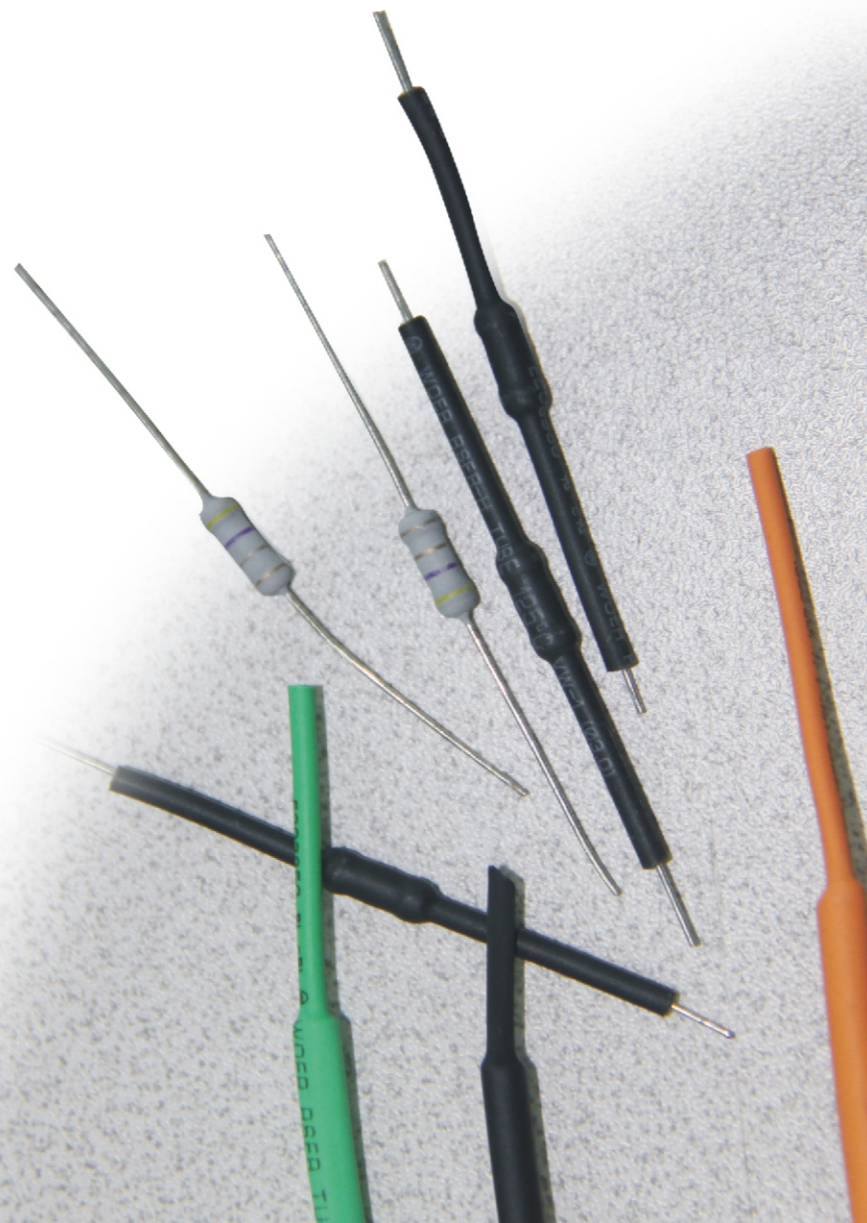
# W-1-PT

Universal heat shrink tubing with excellent physical and mechanical properties



## Features

- Flexible
- Flame retardant
- Continuous Operating Temperature: -55°C to 125°C
- Shrink Temperature: 70°C~125°C
- RoHS Compliant



## Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm	SPOOL LENGTH M/spool
3/64	0.8	1.1±0.2	0.50	0.22	200
1/16	1.0	1.5±0.2	0.65	0.28	200
	1.5	2.0±0.2	0.85	0.32	200
3/32	2.0	2.5±0.2	1.00	0.35	200
	2.5	3.0±0.2	1.30	0.38	200
1/8	3.0	3.5±0.2	1.50	0.40	200
	3.5	4.0±0.2	1.80	0.42	200
	4.0	4.5±0.2	2.00	0.45	200
3/16	4.5	5.0±0.2	2.30	0.50	200
	5.0	5.5±0.2	2.5	0.55	100
1/4	6.0	6.5±0.2	3.0	0.55	100
5/16	7.0	7.5±0.3	3.5	0.55	100
	8.0	8.5±0.3	4.0	0.60	100
3/8	9.0	9.5±0.3	4.5	0.60	100
	10.0	10.5±0.3	5.0	0.60	100
	11.0	11.5±0.3	5.5	0.60	100
1/2	12.0	12.5±0.3	6.0	0.60	100
	13.0	13.5±0.3	6.5	0.65	100
	14.0	14.5±0.3	7.0	0.65	100
	15.0	15.5±0.4	7.5	0.70	100
5/8	16.0	16.5±0.4	8.0	0.70	100
	17.0	17.5±0.4	8.5	0.70	100
	18.0	19.0±0.5	9.0	0.80	100
3/4	20.0	21.0±0.5	10.0	0.80	100
	22.0	23.0±0.5	11.0	0.80	100
	25.0	26.0±0.5	12.5	0.90	50
1	28.0	29.0±0.5	14.0	0.90	50
	30.0	31.5±1.0	15.0	0.95	50
1-1/2	35.0	36.5±1.0	17.5	1.00	50
	40.0	41.5±1.0	20.0	1.00	50
	45.0	46.5±1.0	22.5	1.00	25
	50.0	≥50	25.0	1.00	25
2	60.0	≥60	31.0	1.30	25
	70.0	≥70	36.0	1.30	25
	80.0	≥80	41.0	1.46	25
3	90.0	≥90	46.0	1.46	25
	100.0	≥100	51.0	1.46	25
5	120.0	≥120	61	1.56	25
6	150.0	≥150	76	1.56	25
7	180.0	≥180	91	1.56	25

## Technical Data

### Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D2671	10.4MPa
Elongation(%)	ASTM D2671	200
Tensile Strength after Heat aging	UL 224 158°C X168hrs	≥7.3
Elongation after Heat aging	UL 224 158°C X168hrs	≥100
Heat shock	UL 224 250°C X 4hrs	NO dripping NO cracking

### Electrical

Property	Test Method	Typical Performance
Dielectric Strength	IEC 243	≥15kv/mm
Volume Resistivity	IEC 93	≥1×10 <sup>14</sup> Ω□cm

### Chemical

Property	Test Method	Typical Performance
Corrosion Action	UL 224 158°C X168hrs	PASS
Copper Compatibility	UL 224 158°C X168hrs	PASS

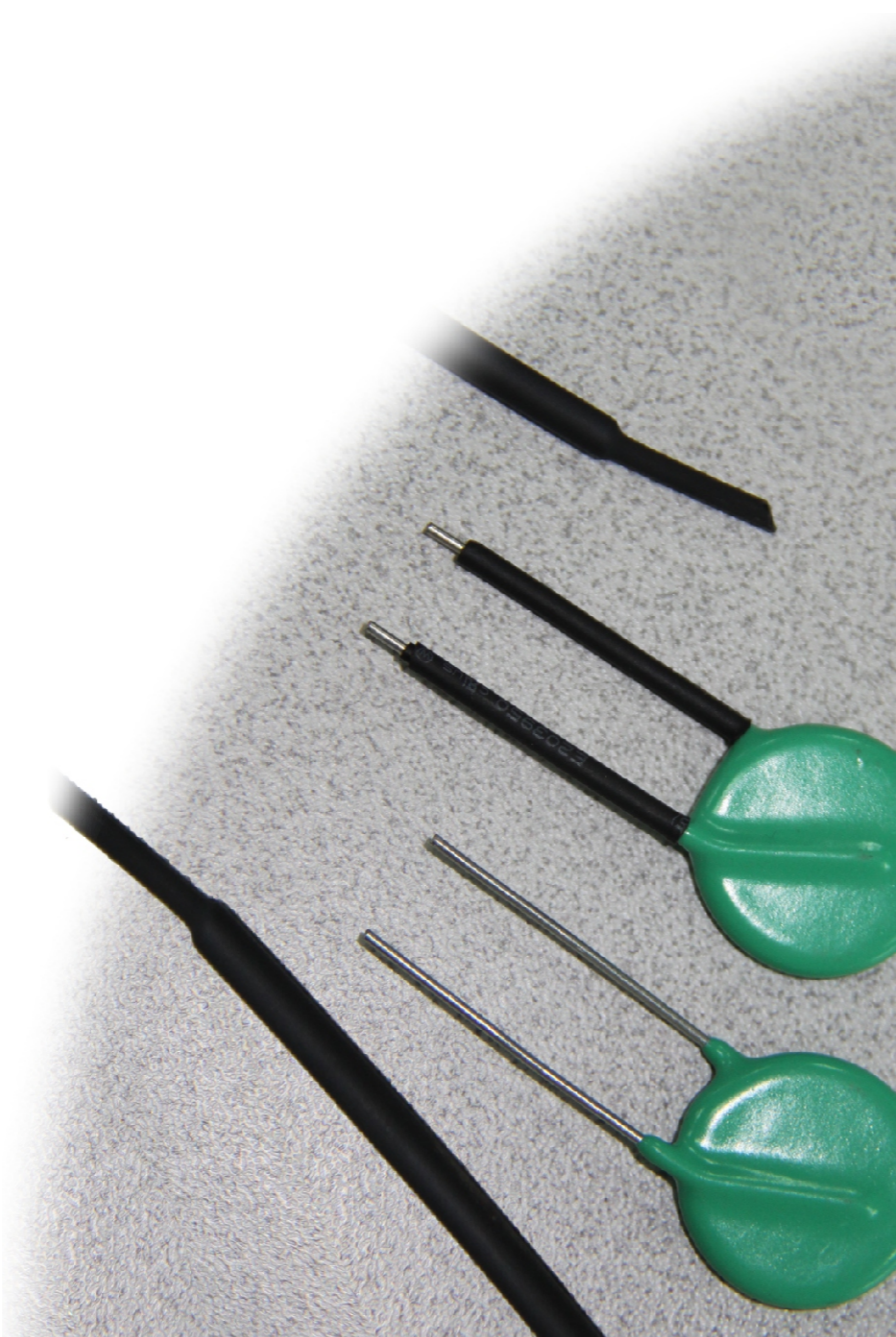
# W-1-PTCB

Ultra thin wall, very flexible  
heat shrink tubing



## Features

- Ultra thin wall
- Very Flexible
- Flame retardant
- Continuous Operating  
Temperature: -55°C to 125°C
- Shrink Temperature: 70°C ~ 110°C
- RoHS Compliant



## Dimension

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm	SPOOL LENGTH M/spool
1/16	1.0	1.4 ± 0.2	0.65	0.20	200
	1.5	1.9 ± 0.2	0.85	0.20	200
3/32	2.0	2.4 ± 0.2	1.00	0.22	200
	2.5	2.9 ± 0.2	1.30	0.25	200
1/8	3.0	3.4 ± 0.2	1.50	0.28	200
	3.5	3.9 ± 0.2	1.80	0.28	200
	4.0	4.4 ± 0.2	2.00	0.30	200
3/16	4.5	4.9 ± 0.2	2.30	0.30	200
	5.0	5.5 ± 0.2	2.5	0.32	100
1/4	6.0	6.5 ± 0.2	3.0	0.32	100
5/16	7.0	7.5 ± 0.3	3.5	0.32	100
	8.0	8.5 ± 0.3	4.0	0.32	100
3/8	9.0	9.5 ± 0.3	4.5	0.35	100
	10.0	10.5 ± 0.3	5.0	0.35	100
	11.0	11.5 ± 0.3	5.5	0.40	100
1/2	12.0	12.5 ± 0.3	6.0	0.40	100
	13.0	13.5 ± 0.3	6.5	0.40	100
	14.0	14.5 ± 0.3	7.0	0.40	100
	15.0	15.5 ± 0.4	7.5	0.40	100
5/8	16.0	16.5 ± 0.4	8.0	0.40	100
	17.0	17.5 ± 0.4	8.5	0.40	100
	18.0	18.5 ± 0.4	9.0	0.42	100
3/4	20.0	20.5 ± 0.5	10.0	0.45	100
	22.0	22.5 ± 0.5	11.0	0.45	100
	25.0	25.5 ± 0.5	12.5	0.45	50

## Technical Data

### Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D2671	10.4MPa
Elongation(%)	ASTM D2671	200
Tensile Strength after Heat aging	UL 224 158°C X168hrs	≥7.3
Elongation after Heat aging	UL 224 158°C X168hrs	≥100
Heat shock	UL 224 250°C X 4hrs	NO dripping NO cracking

### Electrical

Property	Test Method	Typical Performance
Dielectric Strength	IEC 243	≥15kv/mm
Volume Resistivity	IEC 93	≥1 × 10 <sup>14</sup> Ω · cm

### Chemical

Property	Test Method	Typical Performance
Corrosion Action	UL 224 158°C X168hrs	PASS
Copper Compatibility	UL 224 158°C X168hrs	PASS



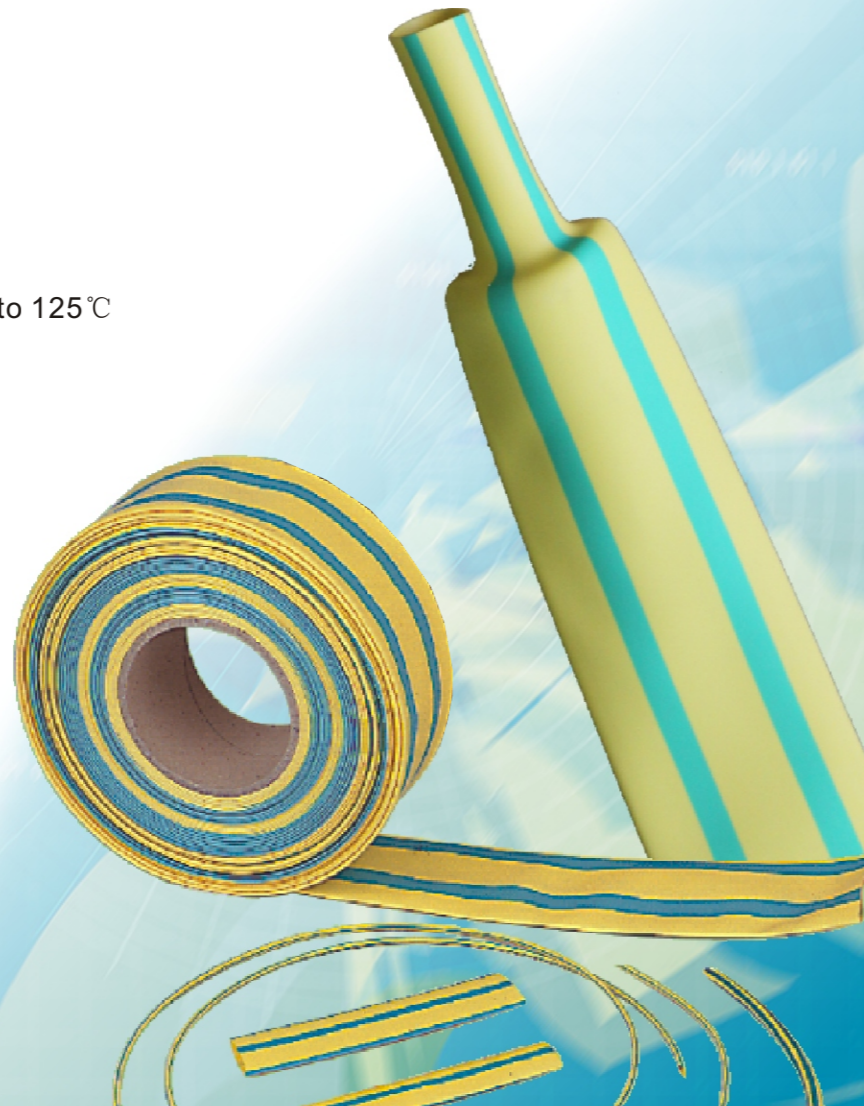
# W-1-HL(2X,3X)

Yellow/Green striped,flexible,flame-retardant.



## Features

- Flexible
- Flame retardant
- Operating Temperature:-55°C to 125°C
- Shrink Ratio:2:1,3:1
- Shrink Temperature:120°C
- RoHS compliant



## Dimensions

### W-1-HL(2X)

SIZE (MM)	AS SUPPLIED(MM)		AFTER RECOVERY (MM)		STANDARD PACKAGE M/SPOOL
	INTERNAL DIAMETER	WALL THICKNESS	INTERNAL DIAMETER	WALL THICKNESS	
Φ1.0	1.5±0.3	0.15±0.08	≤0.65	0.28±0.10	200
Φ1.5	2.0±0.3	0.18±0.08	≤0.85	0.30±0.10	200
Φ2.0	2.5±0.3	0.18±0.08	≤1.00	0.35±0.10	200
Φ2.5	3.0±0.3	0.18±0.08	≤1.30	0.36±0.10	200
Φ3.0	3.5±0.4	0.18±0.08	≤1.50	0.38±0.10	200
Φ3.5	4.0±0.4	0.22±0.08	≤1.80	0.40±0.10	200
Φ4.0	4.5±0.4	0.25±0.08	≤2.00	0.45±0.10	200
Φ4.5	5.0±0.4	0.25±0.08	≤2.30	0.45±0.10	100
Φ5.0	5.5±0.4	0.25±0.08	≤2.5	0.45±0.10	100
Φ6.0	6.5±0.4	0.28±0.08	≤3.0	0.50±0.10	100
Φ7.0	7.5±0.4	0.28±0.08	≤3.5	0.50±0.10	100
Φ8.0	8.5±0.5	0.28±0.08	≤4.0	0.55±0.10	100
Φ9.0	9.5±0.5	0.30±0.10	≤4.5	0.55±0.10	100
Φ10	10.5±0.5	0.30±0.10	≤5.0	0.55±0.10	100
Φ11	11.5±0.5	0.30±0.10	≤5.5	0.60±0.10	100
Φ12	12.5±0.5	0.30±0.10	≤6.0	0.60±0.10	100
Φ13	13.5±0.5	0.35±0.12	≤6.5	0.60±0.10	100
Φ14	14.5±0.5	0.35±0.12	≤7.0	0.65±0.10	100
Φ15	15.5±0.6	0.40±0.12	≤7.5	0.70±0.10	100
Φ16	17.0±0.6	0.40±0.12	≤8.0	0.70±0.10	100
Φ17	17.5±0.6	0.40±0.12	≤8.5	0.70±0.10	100
Φ18	19.0±0.7	0.40±0.15	≤9.0	0.70±0.15	100
Φ20	22.0±0.7	0.40±0.15	≤10.0	0.75±0.15	100
Φ22	24.0±0.7	0.40±0.15	≤11.0	0.80±0.15	100
Φ25	26.0±0.7	0.55±0.15	≤12.5	0.90±0.15	50
Φ28	29.0±0.7	0.55±0.15	≤14.0	0.90±0.15	50
Φ30	31.5±0.7	0.55±0.15	≤15.0	0.95±0.15	50
Φ35	36.5±0.7	0.55±0.15	≤17.5	0.95±0.15	50
Φ40	41.5±0.7	0.55±0.15	≤20.0	1.00±0.20	50
Φ45	46.0±0.7	0.55±0.15	≤22.5	1.00±0.20	25
Φ50	51.0±0.7	0.55±0.15	≤25.0	1.00±0.20	25
Φ60	≥60	0.60±0.15	≤30.0	1.10±0.20	25
Φ70	≥70	0.65±0.15	≤35.0	1.20±0.20	25
Φ80	≥80	0.70±0.15	≤40.0	1.30±0.20	25
Φ90	≥90	0.75±0.15	≤45.0	1.50±0.20	25
Φ100	≥100	0.80±0.20	≤50.0	1.65±0.20	25
Φ120	≥120	0.85±0.20	≤60.0	1.70±0.20	25
Φ150	≥150	0.90±0.20	≤75.0	1.70±0.20	25
Φ180	≥180	0.95±0.30	≤90.0	1.75±0.20	25

### W-1-HL(3X)

SIZE		AS SUPPLIED INTERNAL DIAMETER MIN	AFTER RECOVERY		STANDARD PACKAGE M/SPOOL
INCH	MM		MAX INTERNAL DIAMETER (MM)	WALL THICKNESS (MM)	
1/8	3.2	3.2	1.0	0.60±0.15	200
3/16	4.8	4.8	1.5	0.65±0.15	100
1/4	6.4	6.4	2.0	0.70±0.15	100
3/8	9.5	9.5	3.0	0.80±0.15	50
1/2	12.7	12.7	4.0	0.95±0.20	50
3/4	19.1	19.1	6.0	1.10±0.20	50
1	25.4	25.4	8.0	1.25±0.20	50
1 1/2	39	39.0	13	1.40±0.20	50

## Technical Data

Property	Test Method	Standard
Tensile strength(MPa)	ASTM D2671	> 10.4
Elongation(%)	ASTM D2671	> 200
Dielectric strength(kV/mm)	IEC 243	> 15
Volume resistivity(Ω cm)	IEC 93	> 1 × 10 <sup>14</sup>
Tensile strength after aging	UL224 158°C X168hr	> 7.3
Elongation after aging(%)	UL224 158°C X168hr	> 100
Heat shock	UL224 250°C X4hr	No cracking
Flammability	UL224	W-1

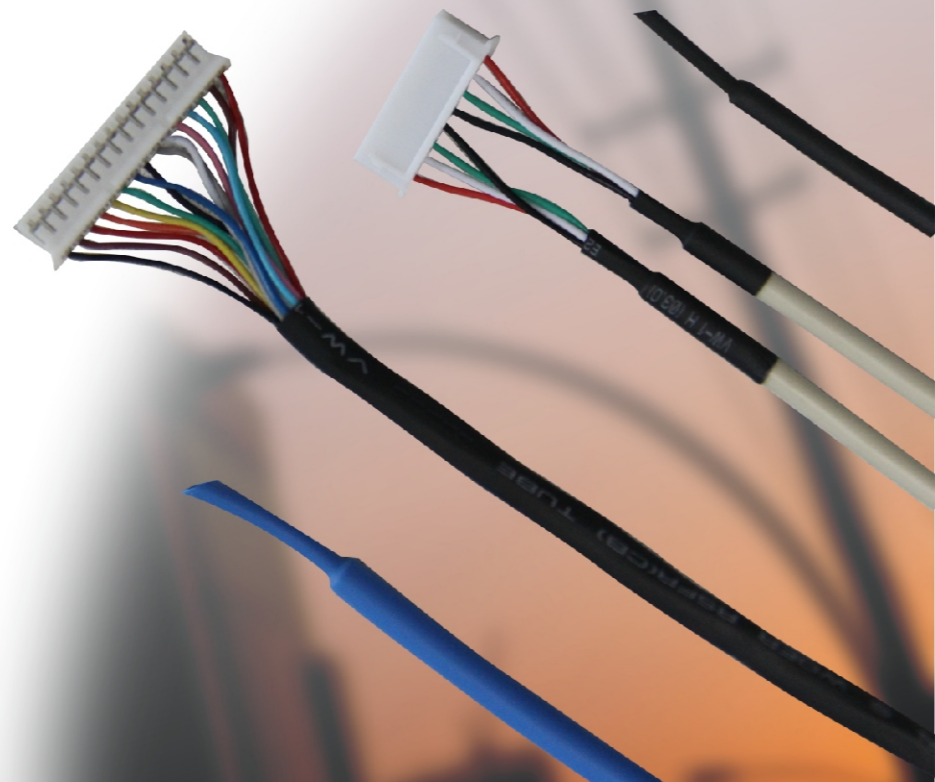
## RSFR-135G(2X)

Flame retardant, multi-purpose  
heat shrink tubing



### Features

- Flexible
- Suitable for various applications
- Continuous Operating Temperature: -55°C to 135°C
- Shrink Temperature: 110°C
- RoHS compliant
- Meet SAE-AMS-DTL  
-23053/5  
Class 1 and 3



### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm	SPOOL LENGTH M/spool
3/64	0.8	1.2	0.6	0.41±0.08	200
1/16	1.0	1.6	0.8	0.43±0.08	200
3/32	2.0	2.4	1.2	0.51±0.08	200
1/8	3.0	3.2	1.6	0.51±0.08	200
3/16	4.5	4.8	2.4	0.51±0.08	100
1/4	6.0	6.4	3.2	0.64±0.08	100
3/8	9.0	9.5	4.8	0.64±0.08	100
1/2	12	12.7	6.4	0.64±0.08	50
5/8	16	15.9	8.0	0.76±0.08	50
3/4	18	19.1	9.5	0.76±0.08	50
1	25	25.4	12.7	0.89±0.12	50
1-1/2	40	38.1	19.1	1.02±0.12	50
2	50	50.8	25.4	1.14±0.12	25
3	80	76.2	38.1	1.27±0.12	25
4	100	101.6	50.8	1.40±0.20	25

### Technical Data Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D2671	10.4MPa
Elongation(%)	ASTM D2671	200%

### Electrical

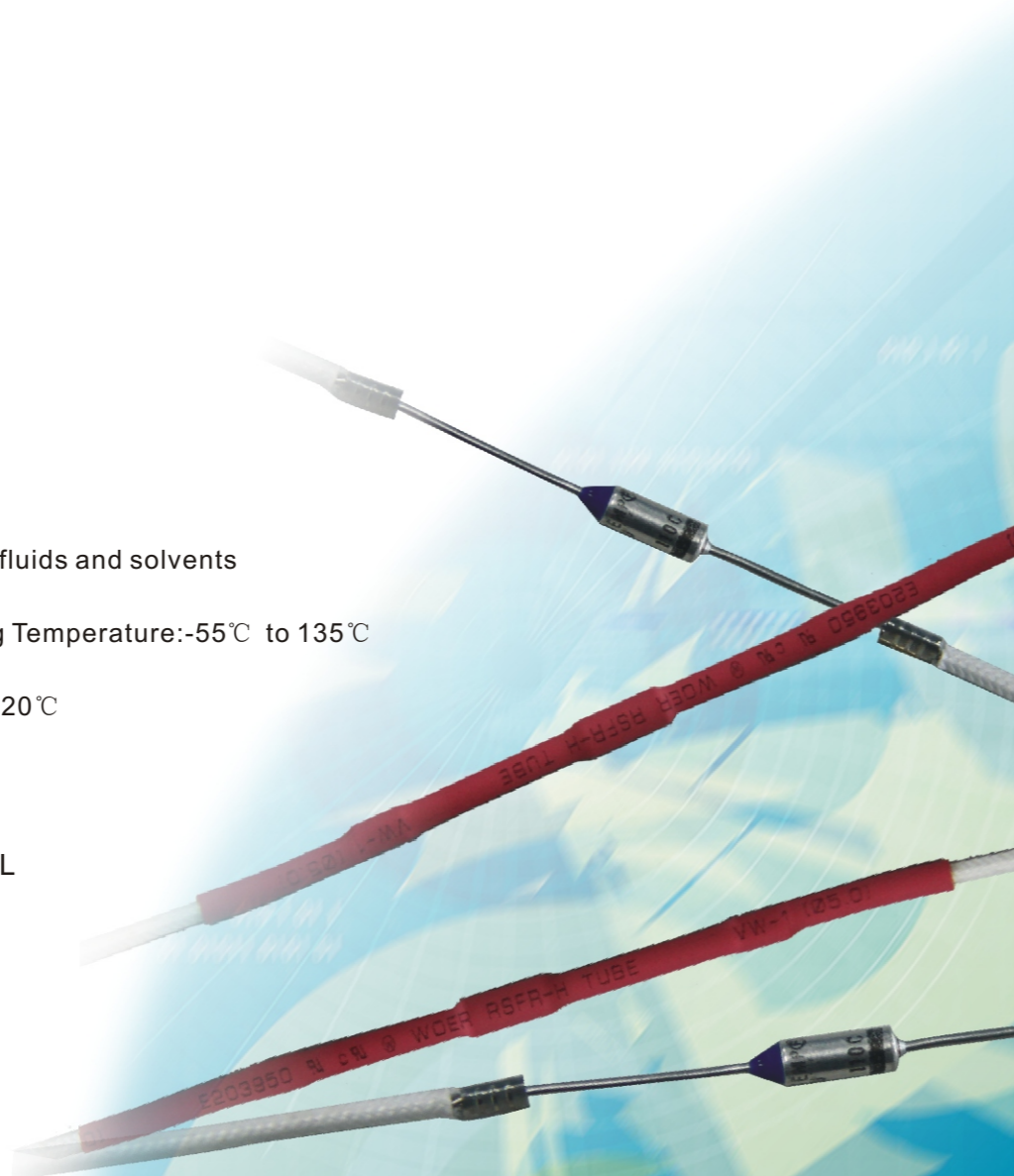
Property	Test Method	Typical Performance
Dielectric Strength	IEC 243	≥15kv/mm
Volume Resistivity	IEC 93	≥1×10 <sup>14</sup> Ω□cm

## RSFR-135G(3X)

High shrink ratio,flexible  
heat shrink tubing

### Features

- Flexible
- High shrink ratio
- Flame retardant
- Resistant to common fluids and solvents
- Continuous Operating Temperature:-55°C to 135°C
- Shrink Temperature:120°C
- RoHS compliant
- Meet SAE-AMS-DTL  
-23053/5  
Class 1 and 3



### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER MIN(mm)	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm	SPOOL LENGTH M/spool
1/16	1.5	1.5	0.5	0.45	200
1/8	3.0	3.0	1.0	0.55	200
3/16	4.5	4.5	1.0	0.60	100
1/4	6.0	6.0	2.0	0.65	100
3/8	9.0	9.0	3.0	0.75	50
1/2	12.0	12.0	4.0	0.75	50
5/8	15.0	15.0	5.0	0.80	50
3/4	18.0	18.0	6.0	0.85	50
1	24.0	24.0	8.0	1.00	25
1-1/4	30.0	30.0	10.0	1.15	1.22
1-1/2	39.0	39.0	13.0	1.50	1.22
2	50	50	16	2.50	1
	60	60	20	2.60	1
	70	70	23	2.60	1
3	80	80	26	2.60	1
	90	90	30	2.60	1
4	100	100	33	2.60	1

### Technical Data

#### Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D2671	10.4MPa
Elongation (%)	ASTM D2671	200%

#### Electrical

Property	Test Method	Typical Performance
Dielectric Strength	IEC 243	≥15kv/mm
Volume Resistivity	IEC 93	≥1×10 <sup>14</sup> Ω□cm

## RSFR-105

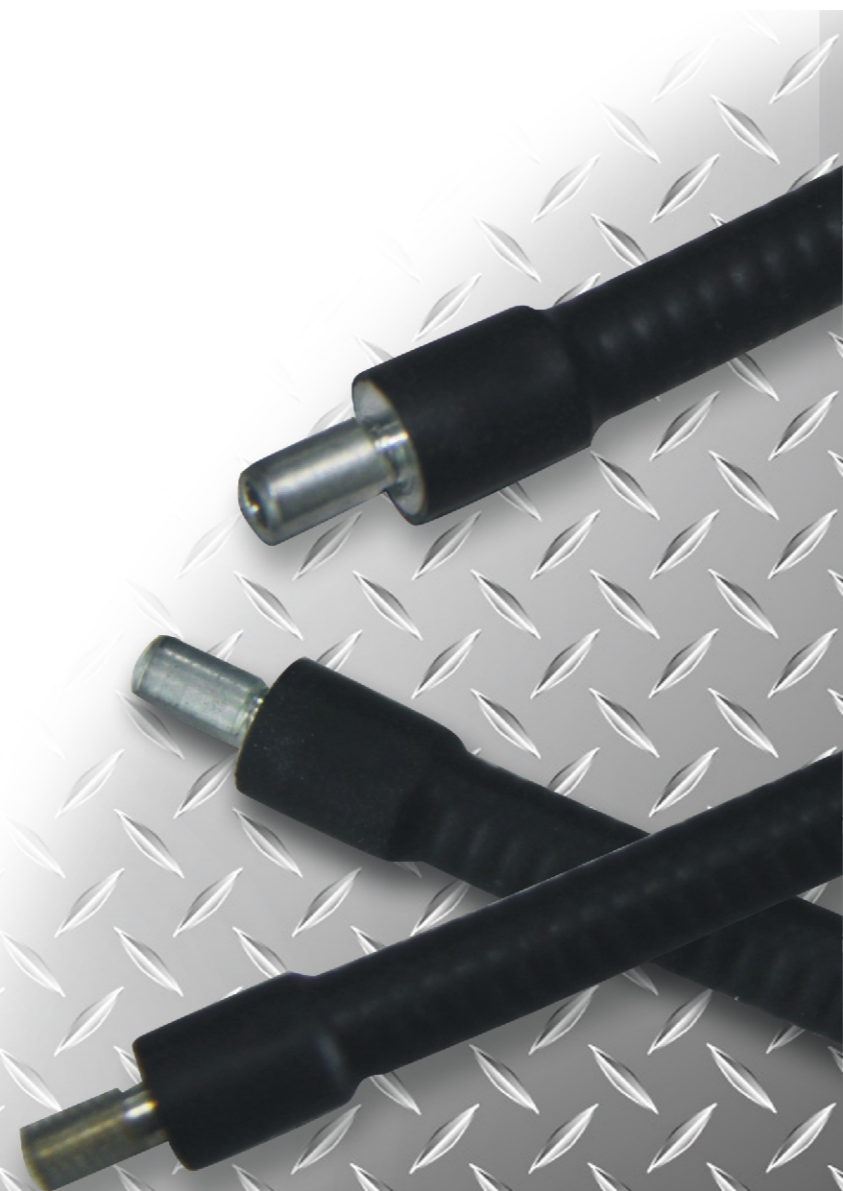
Economical, non self-extinguishing,  
halogen free heat shrink tubing

### Features

- Flexible
- Continuous Operating

Temperature: -55°C to 105°C

- Shrink temperature: 105°C



### Dimension

SIZE	AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
		INTERNAL DIAMETER MAX mm	WALL THICKNESS NIM mm	
mm	INTERNAL DIAMETER MIN(mm)			SPOOL LENGTH M/spool
0.6	0.9±0.2	0.50	0.22	200
0.8	1.1±0.2	0.65	0.28	200
1.0	1.5±0.2	0.85	0.32	200
1.5	2.0±0.2	1.00	0.35	200
2.0	2.5±0.2	1.30	0.38	200
2.5	3.0±0.2	1.50	0.40	200
3.0	3.5±0.2	1.80	0.42	200
3.5	4.0±0.2	2.00	0.50	200
4.0	4.5±0.2	2.30	0.55	200
4.5	5.0±0.2	2.5	0.55	100
5.0	5.5±0.2	3.0	0.55	100
6.0	6.5±0.2	3.5	0.60	100
7.0	7.5±0.3	4.0	0.60	100
8.0	8.5±0.3	4.5	0.60	100
9.0	9.5±0.3	5.0	0.60	100
10.0	10.5±0.3	5.5	0.60	100
11	11.5±0.3	6.0	0.65	100
12	12.5±0.3	6.5	0.65	100
13	13.5±0.3	7.0	0.70	100
14	14.5±0.3	7.5	0.70	100
15	15.5±0.4	8.0	0.70	100
16	16.5±0.4	8.5	0.80	100
17	17.5±0.4	9.0	0.80	100
18	19.0±0.5	10.0	0.80	100
20	21.0±0.5	11.0	0.90	100
22	23.0±0.5	12.5	0.90	50
25	26.0±0.5	14.0	0.95	50
28	29.0±0.5	15.0	1.00	50
30	31.5±1.0	17.5	1.00	50
35	36.5±1.0	20.0	1.00	50
40	41.5±1.0	22.5	1.00	50
45	46.0±1.0	25.0	1.00	50

### Technical Data

#### Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D2671	10.4MPa
Elongation (%)	ASTM D2671	200%

#### Electrical

Property	Test Method	Typical Performance
Dielectric Strength	IEC 243	≥15kv/mm
Volume Resistivity	IEC 93	≥1×10 <sup>14</sup> Ω·cm

## RSFR-HT(2X)

150°C Flame retardant heat shrink tubing



### Features

- Flame-retardant
- Good resistance to common fluids and solvents;
- UL approved
- Operating temperature:  
-55°C~+150°C
- RoHS compliant.



### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER mm	WALL THICKNESS mm	SPOOL LENGTH M/spool
3/64	1.2	1.2	0.6	0.33	200
1/16	1.6	1.6	0.8	0.33	200
3/32	2.4	2.4	1.2	0.44	200
1/8	3.2	3.2	1.6	0.44	200
3/16	4.8	4.8	2.4	0.44	100
1/4	6.4	6.4	3.2	0.56	100
5/16	7.9	7.9	4.0	0.56	100
3/8	9.5	9.5	4.8	0.56	100
1/2	12.7	12.7	6.4	0.56	100
5/8	15.9	15.9	8.0	0.69	100
3/4	19.1	19.1	9.5	0.69	100
1	25.4	25.4	12.7	0.77	50
1-1/4	31.8	31.8	15.9	0.87	50
1-1/2	38.1	38.1	19.1	0.87	50
2	50.8	50.8	25.4	0.97	25
3	76.2	76.2	38.1	1.17	25
4	101.6	101.6	50.8	1.17	25
5	127.0	127.0	63.5	1.17	25
6	152.4	152.4	76.2	1.17	25

### Technical Data

Property	Test Method	Standard
Tensile strength (Mpa)	ASTM D2671	≥10.4
Elongation(%)	ASTM D2671	≥200
Longitudinal change(%)	UL 224	≤±5
Tensile strength after aging (Mpa)	UL 224 180°C×168hrs	≥7.3
Elongation after aging (%)	UL 224 180°C×168hrs	≥100
Heat shock	UL 224 250°C×4hrs	No dripping, No cracking
Cold blend	UL 224 -30°C×1hrs	No cracking
Dielectric strength (kV/mm)	IEC 243	≥15
Volume resistivity (Ω.cm)	IEC 93	≥1×10 <sup>14</sup>
Copper stability	UL 224	PASS
Flammability	UL 224	VW-1
Water absorption(%)	UL 224	≤0.5
Corrosion	UL 224	PASS

# PO

Non-shrinkable, Irradiated, Flexible

Flame-retardant, Polyolefin Tubing

## Features

- Flame-retardant
- Operating temperature: -55°C ~ +125°C
- RoHS compliant.



## Dimensions

SIZE(AWG)	INTERNAL DIAMETER(mm)	WALL THICKNESS(mm)	STANDARD PACKAGE (M/Spool)
AWG18	1.00±0.10	0.40±0.06	200
AWG16	1.30±0.10	0.40±0.06	200
AWG14	1.65±0.10	0.40±0.06	200
AWG12	2.10±0.15	0.40±0.06	200
AWG10	2.60±0.15	0.50±0.08	200
AWG8	3.30±0.15	0.50±0.08	200
AWG6	4.10±0.20	0.50±0.08	100
AWG4	5.20±0.20	0.50±0.08	100
AWG2	6.50±0.20	0.50±0.08	100
AWG0	8.30±0.30	0.50±0.08	100
3/8"	9.50±0.40	0.50±0.08	100
7/16"	11.10±0.40	0.50±0.08	100
1/2"	12.70±0.40	0.50±0.08	100

## Technical Data

Property	Test Method	Standard
Tensile Strength (MPa)	ASTM D2671	≥ 10.4
Elongation (%)	ASTM D2671	≥ 200
Volume resistivity (Ω.cm)	IEC 93	≥ 10 <sup>14</sup>
Flammability	UL224	Self-extinguishing
Corrosion	UL224	PASS
Water absorption (%)	ASTM D570	≤ 0.5
Dielectric strength (kV/mm)	IEC 243	≥ 15



## Dual Wall Products

WOER offers a wide range of dual wall products. The available combinations of jacket materials and adhesives allow the customer to choose just right tubing for the application and environmental conditions

# W-1-SB(2X)

## Dual Wall Adhesive-Lined Heat-Shrink Polyolefin Tubing

Adhesive lined heat shrink tubing with environmental sealing capability for a wide variety of electrical applications, including automotive and marine wire harness, wire splices, breakouts, and connector-to-cable transitions.

### Features

- 2:1 shrink ratio
- Longitudinal shrink 8% max
- Out jacket flame retardant
- Super sealing against water, moisture or other contaminants
- Continuous operating temperature: -45°C ~ 125°C
- Shrink temperature: 120°C

### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY			STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER mm	TOTAL WALL THICKNESS mm	ADHESIVE THICKNESS mm	SPOOL LENGTH M/spool
1/16	1.6	1.6	0.8	0.60±0.15	0.3±0.1	200
3/32	2.4	2.4	1.2	0.70±0.15	0.35±0.1	200
1/8	3.2	3.2	1.6	0.70±0.15	0.35±0.1	200
3/16	4.8	4.8	2.4	0.80±0.15	0.4±0.1	100
1/4	6.4	6.4	3.2	0.80±0.15	0.4±0.1	100
5/16	7.9	7.9	3.9	0.90±0.15	0.45±0.1	100
3/8	9.5	9.5	4.8	0.90±0.15	0.45±0.1	1.22
1/2	12.7	12.7	6.4	0.95±0.20	0.45±0.1	1.22
5/8	15.9	15.9	7.9	0.95±0.20	0.45±0.1	1.22
3/4	19.1	19.1	9.5	1.0±0.20	0.45±0.1	1.22
1	25.4	25.4	12.7	1.1±0.20	0.50±0.1	1.22
1 1/4	31.8	31.8	15	1.15±0.20	0.50±0.1	1.22
1 1/2	38.1	38.1	19	1.25±0.20	0.50±0.1	1.22
1 3/4	44.5	44.5	22	1.35±0.20	0.55±0.1	1.22
2	50.8	50.8	25.4	1.5±0.25	0.60±0.1	1.22

### Technical Data

Property	Test Method	Standard
Tensile Strength(MPa)	ASTM D2671	≥10.4
Elongation	ASTM D2671	≥300
Tensile Strength after aging (MPa)	UL224 158°CX168hr	≥7.3
Elongation after aging (%)	UL224 158°CX168hr	≥200
Dielectric strength(kv/mm)	IEC243	≥15
Volume resistivity(Ω.cm)	ASTM D876	≥1X10 <sup>14</sup>

### Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E8	95°C
Strength of peeling (PE)	ASTM D 1000	120N/25mm
Strength of peeling (AL)	ASTM D 1000	80N/25mm



# W-1-SB(3X)

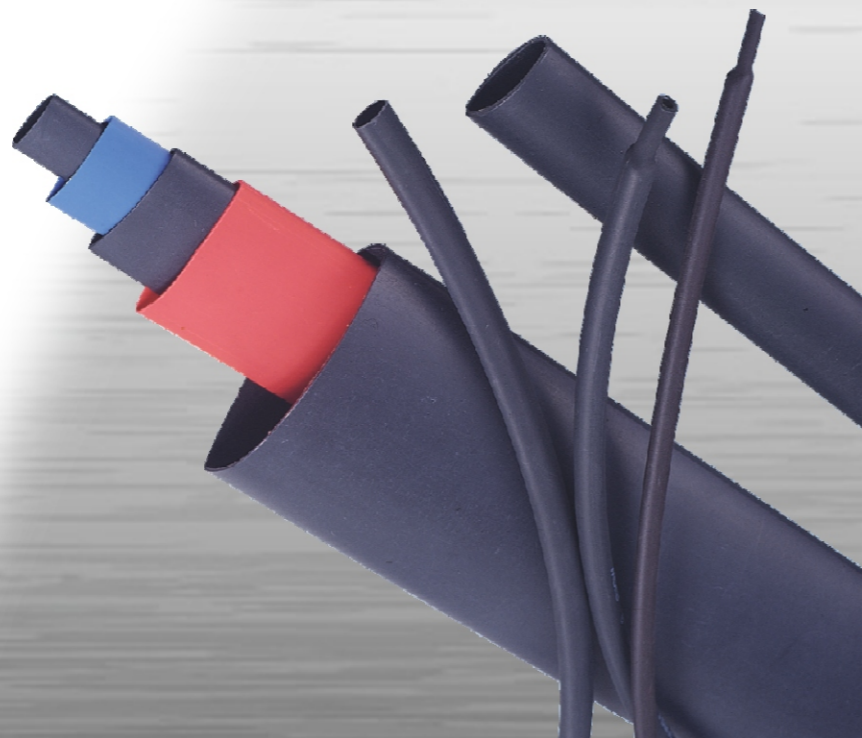
## Dual Wall Adhesive-Lined Heat-shrink Polyolefin Tubing

Adhesive lined heat shrink tubing with environmental sealing capability for a wide variety of electrical applications, including automotive and marine wire harness, wire splices, breakouts, and connector-to-cable transitions.



### Features

- 3:1 shrink ratio
- Longitudinal shrink 8% max
- Out jacket flame retardant,
- Super sealing against water, moisture or other contaminants
- Continuous operating temperature: -45°C ~ 125°C
- Shrink temperature: 120 °C



### Dimensions

Size		As supplied	After Recovered (mm)			Standard package (m/spool)
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER	TOTAL WALL THICKNESS	WALL THICKNESS OF ADHESIVE	
1/8	3.2	3.2	1.00	0.90 ± 0.15	0.35 ± 0.10	200
3/16	4.8	4.8	1.60	1.00 ± 0.15	0.40 ± 0.10	100
1/4	6.4	6.4	2.20	1.25 ± 0.15	0.45 ± 0.12	100
5/16	7.9	7.9	2.70	1.30 ± 0.15	0.50 ± 0.12	100
3/8	9.5	9.5	3.20	1.40 ± 0.15	0.50 ± 0.12	50
1/2	12.7	12.7	4.20	1.70 ± 0.15	0.50 ± 0.12	36.6
5/8	15.0	15.0	5.20	1.80 ± 0.15	0.55 ± 0.15	30.5
3/4	19.1	19.1	6.30	1.95 ± 0.15	0.55 ± 0.15	30.5
1	25.4	25.4	8.50	2.05 ± 0.20	0.55 ± 0.15	30.5
1-1/4	30.0	30.0	10.20	2.20 ± 0.20	0.60 ± 0.15	24.4
1-1/2	39.0	39	13.50	2.50 ± 0.20	0.60 ± 0.15	18.3
2	50.0	50	17.00	2.80 ± 0.25	0.70 ± 0.15	12.2
5/2	64	64	21.00	3.00 ± 0.25	0.70 ± 0.15	6.1
3	75	76	25.00	3.00 ± 0.30	1.00 ± 0.20	1.22
7/2	90	90	30.00	3.00 ± 0.30	1.00 ± 0.20	1.22
4	100	100	34.00	3.00 ± 0.30	1.00 ± 0.20	1.22
5	125	125	42.00	3.00 ± 0.30	1.00 ± 0.20	1.22

### Technical Data

Property	Test Method	Standard
Tensile Strength (MPa)	ASTM D2671	≥ 10.4
Elongation	ASTM D2671	≥ 300
Tensile Strength after aging (MPa)	UI224 158°CX168hr	≥ 7.3
Elongation after aging (%)	UI224 158°CX168hr	≥ 200
Dielectric strength (kv/mm)	IEC243	≥ 15
Volume resistivity (Ω.cm)	ASTM D876	≥ 1X10 <sup>14</sup>

### Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤ 0.2%
Softening Point	ASTM E8	95°C
Strength of peeling (PE)	ASTM D 1000	120N/25mm
Strength of peeling (AL)	ASTM D 1000	80N/25mm

# W-1-SB(4X)

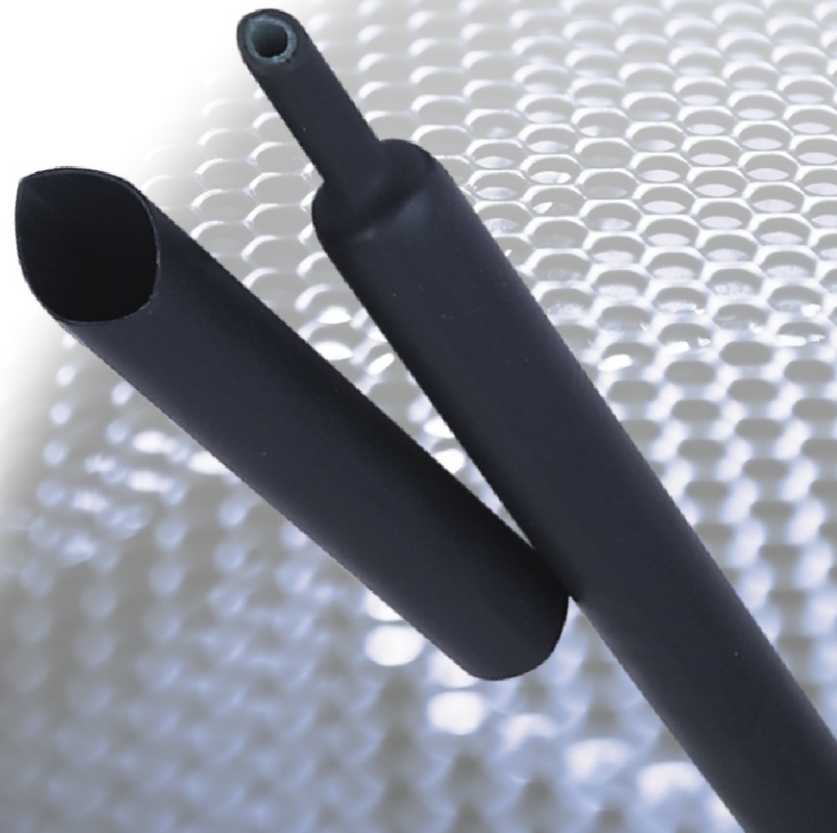
## Dual Wall Adhesive-Lined Heat-Shrink Polyolefin Tubing

Adhesive lined heat shrink tubing with environmental sealing capability for a wide variety of electrical applications, including automotive and marine wire harness, wire splices, breakouts, and connector-to-cable transitions.



### Features

- 4:1 Very high shrink ratio
- Longitudinal shrink 8% max
- Out jacket flame retardant
- Super sealing against water, moisture or other contaminants
- Continuous operating temperature: -45°C ~ 125°C
- Shrink temperature: 120°C



### Dimensions

Size		As supplied	After Recovered (mm)			Standard package (m/spool)
Inch	(mm)	INTERNAL DIAMETER mm	INTERNAL DIAMETER	TOTAL WALL THICKNESS	WALL THICKNESS OF ADHESIVE	
5/32	4.0	4.0	1.0	1.1±0.15	0.4±0.15	200
1/4	6.0	6.0	1.5	1.5±0.15	0.5±0.15	100
5/16	8.0	8.0	2.0	1.7±0.15	0.5±0.15	50
1/2	12.0	12.0	3.0	2.0±0.15	0.6±0.15	1.22m/pc
5/8	16.0	16.0	4.0	2.3±0.25	0.6±0.15	1.22m/pc
25/32	20.0	20.0	5.0	2.6±0.25	0.6±0.15	1.22m/pc
1	24.0	24.0	6.0	3.0±0.30	0.7±0.15	1.22m/pc
3/2	32.0	32.0	8.0	3.0±0.30	0.7±0.15	1.22m/pc
2	52.0	52.0	13.0	3.3±0.30	0.7±0.15	1.22m/pc

### Technical Data

Property	Test Method	Standard
Tensile Strength(MPa)	ASTM D2671	≥10.4
Elongation	ASTM D2671	≥300
Tensile Strength after aging (MPa)	UI224 158°CX168hr	≥7.3
Elongation after aging (%)	UI224 158°CX168hr	≥200
Dielectric strength(kv/mm)	IEC243	≥15
Volume resistivity(Ω.cm)	ASTM D876	≥1X10 <sup>14</sup>

### Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E8	95°C
Strength of peeling(PE)	ASTM D 1000	120N/25mm
Strength of peeling(AL)	ASTM D 1000	80N/25mm

# W-1-SB(4X)GR

## High-Shrink-Ratio, Adhesive-Lined Semirigid Polyolefin Tubing

4:1 shrink ratio allows a few sizes to cover a wide range of splice and component diameters, mechanically tough tubing provides strain relief and abrasion protection of wire splices, terminals, and other components, adhesive-lined against fluids, moisture and other contaminants.

### Features

- 4:1 Very high shrink ratio
- Longitudinal shrink 8% max
- Out jacket flame retardant
- Continuous operating temperature:  
-45°C ~ 125°C
- Shrink temperature: 120°C



### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY			STANDARD PACKAGE (M/PC)
INCH	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER	TOTAL WALL THICKNESS	WALL THICKNESS OF ADHESIVE	
1/4	6.0	6.0	1.27	1.30±0.15	0.56±0.15	1.22
5/16	8.0	8.0	1.65	1.65±0.15	0.76±0.15	1.22
1/2	12.0	12.0	2.41	2.00±0.15	1.02±0.15	1.22
3/4	18.0	18.0	4.45	2.50±0.15	1.37±0.15	1.22

### Technical Data

Property	Test Method	Standard
Tensile Strength (MPa)	ASTM D2671	≥12
Elongation	ASTM D2671	≥300
Tensile Strength after aging (MPa)	UL224 158°CX168hr	≥7.3
Elongation after aging (%)	UL224 158°CX168hr	≥200
Dielectric strength (kv/mm)	IEC243	≥15
Volume resistivity (Ω.cm)	ASTM D876	≥1X10 <sup>14</sup>

### Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E8	95°C
Strength of peeling (PE)	ASTM D 1000	120N/25mm
Strength of peeling (AL)	ASTM D 1000	80N/25mm

# SBRS-(3X)GLW

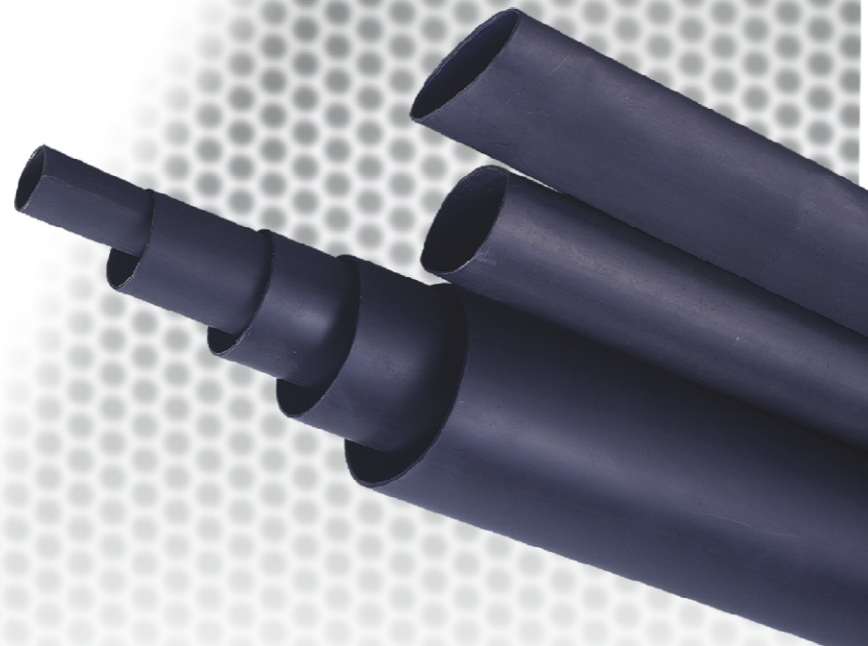
## Flexible, Thick Adhesive Lined Dual Wall Heat Shrinkable Tubing

Flexible, Thick Adhesive Lined Dual Wall Heat Shrinkable Tube is manufactured by co-extrusion of polyolefin and hot-melt adhesive. Designed to provide both insulation and sealing for protected articles. Used to protect bundles wires and metal tubes against water and moisture.



### Features

- Longitudinal shrink 8% max
- Flexible, thick adhesive lined to bond to a wide variety of plastics, rubber and metals
- Operating Temperature: -45°C ~ 125°C
- Shrinking Temperature: Start at 70°C, and shrunk totally at 125°C
- Shrink Ratio: 3:1



### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY (MM)			STANDARD PACKAGE (M/SPOOL)
mm	INCH	INTERNAL DIAMETER (MM)	INTERNAL DIAMETER (MM)	TOTAL WALL THICKNESS	WALL THICKNESS OF ADHESIVE LAYER	
3.2	1/8	3.2	1.0	0.95 ± 0.15	0.45 ± 0.10	200
4.8	3/16	4.8	1.6	1.20 ± 0.15	0.60 ± 0.10	100
6.4	1/4	6.4	2.2	1.35 ± 0.15	0.70 ± 0.10	100
7.9	5/16	7.9	2.7	1.50 ± 0.15	0.75 ± 0.10	100
9.5	3/8	9.5	3.2	1.65 ± 0.15	0.85 ± 0.10	50
12.7	1/2	12.7	4.2	1.80 ± 0.20	0.90 ± 0.10	1m/pc
15.0	5/8	15.0	5.2	1.80 ± 0.20	0.90 ± 0.10	1m/pc
19.1	3/4	19.1	6.3	2.00 ± 0.20	1.00 ± 0.10	1m/pc
25.4	1	25.4	8.5	2.10 ± 0.20	1.05 ± 0.10	1m/pc
30.0	5/4	30.0	10.2	2.20 ± 0.20	1.05 ± 0.10	1m/pc
38.1	1-1/2	38.1	13.5	2.40 ± 0.20	1.15 ± 0.10	1m/pc

### Technical Data

Property	Test Method	Test Result
Tensile Strength, MPa	ASTM D2671	≥10.4
Elongation, %	ASTM D2671	≥300
Tensile Strength after aging, MPa	UL 224, 158°CX168h	≥7.3
Elongation after aging, %	UL 224, 158°CX168h	≥20
Dielectric strength (kV/mm)	IEC 243	≥15
Volume resistance Ω.cm	IEC 93	≥1X10 <sup>14</sup>

### Hot melt adhesive

Property	Test Method	Test Result
Water absorption	ASTM D570	≤0.2%
Softening point	ASTM E28	95°C
Peel strength (PE)	ASTMD 1000	120N/25mm
Peel strength (PA)	ASTMD 1000	80N/25mm

# GPFS

## Adhesive-lined Heat-Shrinkable Tubing for Automotive Oil-pipe Protection

GPFS adhesive-lined Heat-Shrinkable Tubing is specifically designed for Automotive Oil-pipe Protection, providing preventive protection to brake line, fuel line, hydraulic line and other metal pipeline which is subject to bending or clamping during manufacturing, installation or operation.

### Features

- Semi-rigid outer layer for mechanical damage prevention
- Adhesive inner layer, sealing against moisture and prevent corrosion
- Easy installation, the adhesive layer will not separate from pipeline
- Operating temperature: -45°C ~ 105°C
- Shrink temperature: 120°C



### Dimensions

SIZE mm	AS SUPPLIED	AFTER RECOVERY (MM)			STANDARD PACKAGE (M/SPOOL)
	INTERNAL DIAMETER (MM)	INTERNAL DIAMETER	TOTAL WALL THICKNESS	WALL THICKNESS OF ADHESIVE LAYER	
4.5	≥5.0	≤3.2	1.20±0.2	0.3±0.1	300
6.0	≥6.5	≤4.5	1.20±0.2	0.3±0.1	300
8.0	≥8.5	≤6.1	1.20±0.2	0.3±0.1	200
11.0	≥11.5	≤7.1	1.30±0.2	0.3±0.1	200
13.0	≥13.0	≤9.8	1.30±0.2	0.3±0.1	100
15.0	≥15.0	≤11.5	1.30±0.2	0.3±0.1	100

### Technical Data

Property	Test Method	Test Result
Tensile Strength (Mpa)	ASTM D2671	≥12
Elongation%	ASTM D2671	≥300
Tensile Strength after Aging (Mpa)	UL 224 158×168hr	≥7.3
Longitudinal change (%)	ASTM D2671	10 max
Brittleness temperature	ASTM D746	No crack at -35°C



## Medium & Heavy Wall Products

Medium Wall and Heavy Wall heat shrinkable tubing possesses excellent insulation, environmental sealing, and impact and abrasion resistance.

Medium Wall & Heavy Wall tubing is used in a variety of general purpose applications to seal and protect electrical connections and terminations and provide excellent mechanical protection.

Woer line of specially designed medium & heavy wall products are used as the industry standard in several markets including electricity and Mass Transportation.

# SBRSM

## Medium Wall Adhesive Lined

### Heat Shrinkable Tubing

Medium wall heat shrinkable tubing suitable for a variety of low voltage electrical and mechanical application, where lighter weight and greater flexibility are important

### Features

- Seals and protects cable splices and terminations
- High resistance to impact and abrasion
- Optional thermoplastic adhesive liner for complete environmental protection and insulation
- Continuous Operating Temperature: -45°C to 125°C
- Shrink Temperature: 125°C



## Dimensions

SIZE	AS SUPPLIED	AFTER RECOVERY (MM)				STANDARD LENGTH (M/PC)
		INTERNAL DIAMETER (MM)	INTERNAL DIAMETER	OUT LAYER WALL THICKNESS	ADHESIVE LAYER WALL THICKNESS	
10.2/3.0	> 10.2	< 3.0	1.4±0.20	0.35±0.10	1.75±0.25	1.22
16/5.0	> 16	< 5.0	1.5±0.20	0.40±0.10	1.90±0.25	1.22
19.1/5.6	> 19.1	< 5.6	2.0±0.20	0.45±0.10	2.45±0.25	1.22
25/8	> 25	< 8	2.0±0.20	0.45±0.10	2.45±0.25	1.22
28/6	> 28	< 6	2.5±0.20	0.65±0.10	3.10±0.30	1.22
28/9	> 28	< 9	2.0±0.20	0.50±0.10	2.60±0.25	1.22
35/10.2	> 35	< 10.2	2.2±0.20	0.50±0.10	2.70±0.25	1.22
38.1/12	> 38.1	< 12	2.2±0.20	0.50±0.10	2.70±0.25	1.22
43.2/12.7	> 43.2	< 12.7	2.2±0.20	0.50±0.10	2.70±0.25	1.22
52.1/16	> 52.1	< 16	2.3±0.25	0.50±0.15	2.80±0.30	1.22
63/19	> 63	< 19	2.5±0.25	0.50±0.15	3.00±0.30	1.22
75/22	> 75	< 22	2.6±0.25	0.50±0.15	3.00±0.30	1.22
58/25	> 85	< 25	2.8±0.30	0.50±0.15	3.30±0.30	1.22
95/29	> 95	< 29	3.1±0.30	0.60±0.20	3.70±0.35	1.22
115/34	> 115	< 34	3.1±0.30	0.60±0.20	3.70±0.35	1.22
140/42	> 140	< 42	3.1±0.30	0.60±0.20	3.70±0.35	1.22

## Technical Data

Property	Test Method	Standard
Tensile Strength (Mpa)	ASTM D2671	≥10.4
Elongation (%)	ASTM D2671	≥300
Density (g/cm³)	ASTM D792	1.2
Longitudinal change (%)	UL 224	≤±10
Elongation after aging (%)	UL224 158°CX168hrs	≥200
Heat shock	UL224 225°CX4hrs	No cracking
Dielectric strength (kv/mm)	IEC 243	≥20
Volume resistivity (Ω.cm)	IEC 93	≥1X10 <sup>14</sup>
Water absorption (%)	ASTM-D570	≤0.5

## Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E28	95°C
Peel Strength (PE)	ASTM D 1000	120N/25mm
Peel Strength (AL)	ASTM D 1000	80N/25mm

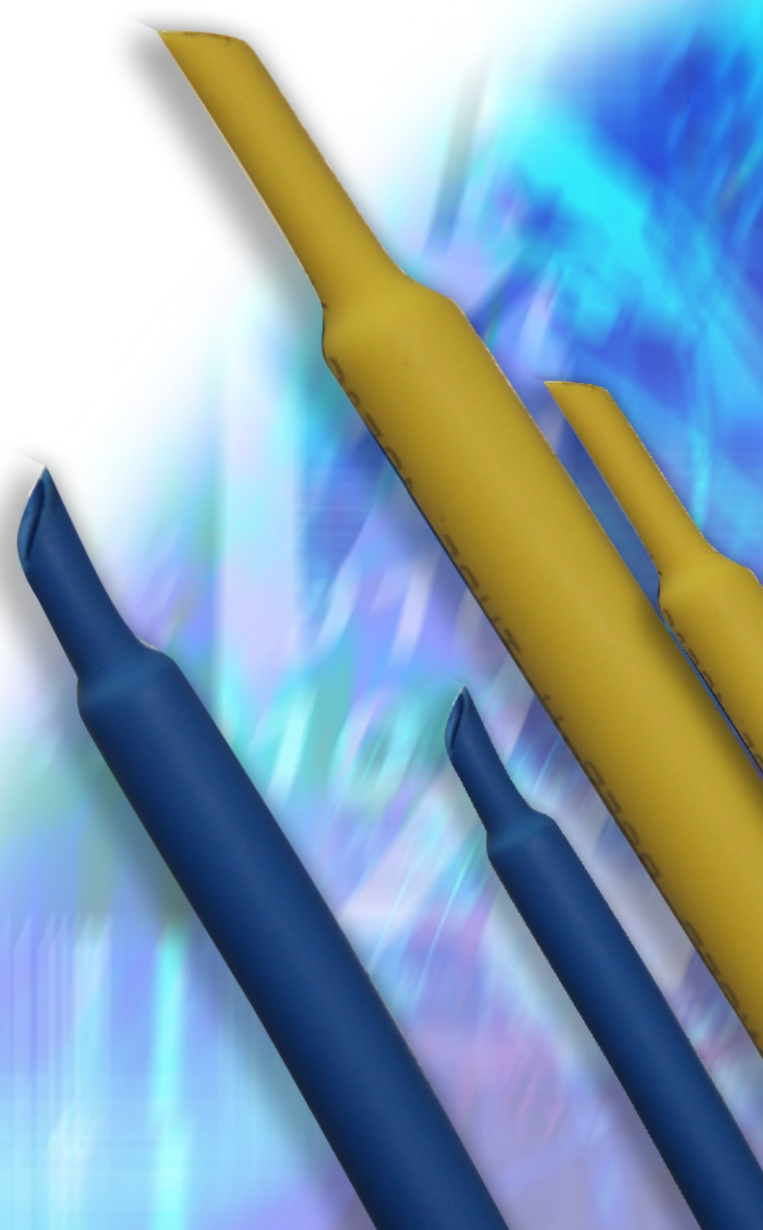
# SBRWSW

## Heavy Wall Adhesive Lined Heat Shrinkable Tubing

Heavy wall heat shrinkable tubing provides maximum reliability for insulation and protecting cable joints and terminations

### Features

- Withstands severe mechanical requirements
- Rated for 600V,90°C continuous use
- Optional thermoplastic adhesive liner for complete environmental protection and insulation
- Continuous Operation  
Temperature:-45°C to 125°C
- Shrink Temperature:125°C



### Dimensions

SIZE	AS SUPPLIED	AFTER RECOVERY (MM)				STANDARD LENGTH (M/PC)
		INTERNAL DIAMETER (MM)	INTERNAL DIAMETER	OUT LAYER WALL THICKNESS	ADHESIVE LAYER WALL THICKNESS	
9/3	> 9	< 3	2.0±0.20	0.35±0.10	2.30 ± 0.25	1.22
13/4	> 13	< 4	2.4±0.20	0.35±0.10	2.75 ± 0.25	1.22
20/6	> 20	< 6	2.5±0.20	0.40±0.10	2.90 ± 0.25	1.22
28/9	> 28	< 9	2.5±0.20	0.40±0.10	2.90 ± 0.25	1.22
33/10.2	> 33	< 10.2	3.2±0.25	0.40±0.10	3.60 ± 0.25	1.22
38.1/12	> 38.1	< 12	3.4±0.20	0.60±0.15	4.00 ± 0.35	1.22
43.2/12.7	> 43.2	< 12	4.3±0.20	0.70±0.35	5.00 ± 0.35	1.22
51/16	> 51	< 16	4.3±0.20	0.70±0.35	5.00 ± 0.35	1.22
70/21	> 70	< 21	4.3±0.20	0.70±0.35	5.00 ± 0.35	1.22
85/25	> 85	< 25	4.3±0.20	0.70±0.35	5.00 ± 0.35	1.22
105/30	> 105	< 30	4.3±0.20	0.80±0.35	5.10 ± 0.35	1.22
120/39	> 120	< 39	4.3±0.20	0.50±0.35	5.10 ± 0.35	1.22
140/42	> 140	< 42	4.3±0.20	0.60±0.35	5.10 ± 0.35	1.22

### Technical Data

Property	Test Method	Standard
Tensile Strength(Mpa)	ASTM D2671	≥10.4
Elongation(%)	ASTM D2671	≥300
Density(g/cm <sup>3</sup> )	ASTM D792	1.2
Longitudinal change(%)	UL 224	≤±10
Elongation after aging(%)	UL224 158°CX168hrs	≥200
Heat shock	UL224 225°CX4hrs	No cracking
Dielectric strength(kv/mm)	IEC 243	≥20
Volume resistivity(Ω.cm)	IEC 93	≥1X10 <sup>14</sup>
Water absorption(%)	ASTM-D570	≤0.5

### Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E28	95°C
Peel Strength(PE)	ASTM D 1000	120N/25mm
Peel Strength(AL)	ASTM D 1000	80N/25mm



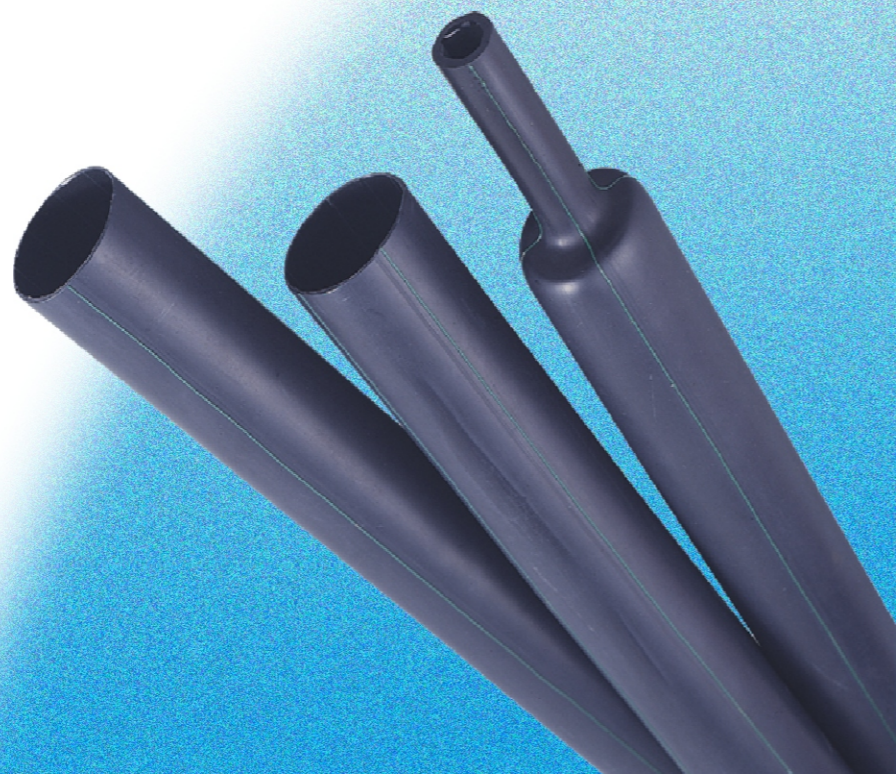
# SBRSTV

## Medium Wall Adhesive-lined Heat Variable Heat Shrink Tubing

Heat shrinkable tubing and adhesive liner combination that established the CATV industry standard for splice and connector protection

### Features

- An absolutely waterproof seal
- Selective strippability to meet CATV industry specifications
- Minimal heat required to produce error-free installation without splitting
- Thermochromatic paint ensures integrity of seal
- Continuous Operating Temperature: -45°C to 125°C
- Shrink Temperature :125°C



### Dimensions

SIZE	AS SUPPLIED	AFTER RECOVERY (MM)				STANDARD LENGTH (M/PC)
		INTERNAL DIAMETER (MM)	INTERNAL DIAMETER	OUT LAYER WALL THICKNESS	ADHESIVE LAYER WALL THICKNESS	
0400 (10 2/3.8)	10.2	3.8	2.0±0.20	0.40±0.10	2.40±0.25	122
0750 (19 0/5.6)	19	5.6	2.0±0.20	0.45±0.10	2.65±0.25	122
1100 (27 9/10 2)	27.9	10.2	2.5±0.20	0.5±0.15	3.00±0.25	122
1300 (33 0/10 2)	33	10.2	2.6±0.20	0.5±0.15	3.10±0.25	122
1500 (38 1/12 7)	38.1	12.7	2.7±0.20	0.5±0.15	3.20±0.30	122
1700 (43 2/12 7)	43.2	12.7	2.7±0.20	0.5±0.15	3.20±0.25	122
2050 (52 1/19 0)	52.1	19.0	2.8±0.20	0.5±0.15	3.30±0.25	122
2750 (69 8/25 4)	69.8	25.4	2.8±0.20	0.6±0.15	3.40±0.25	122

### Technical Data

Property	Test Method	Standard
Tensile Strength(Mpa)	ASTM D2671	≥12
Elongation(%)	ASTM D2671	≥300
Density (g/cm <sup>3</sup> )	ASTM D792	1.2
Longitudinal change (%)	UL 224	≤±10
Elongation after aging (%)	UL224 158°CX168hrs	≥200
Heat shock	UL224 225°CX4hrs	No cracking
Dielectric strength(kv/mm)	IEC 243	≥20
Volume resistivity(Ω.cm)	IEC 93	≥1X10 <sup>14</sup>
Water absorption (%)	ASTM-D570	≤0.5

### Hot Melt Adhesive Property

Property	Test Method	Standard
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E28	95°C
Peel Strength(PE)	ASTM D 1000	120N/25mm
Peel Strength(AL)	ASTM D 1000	80N/25mm



## Non Polyolefin Products

Woer provides special materials for demanding applications.

These products, made of materials ranging from elastomers to fluoropolymers, offer increased protection against extreme temperatures and harsh operating environments.

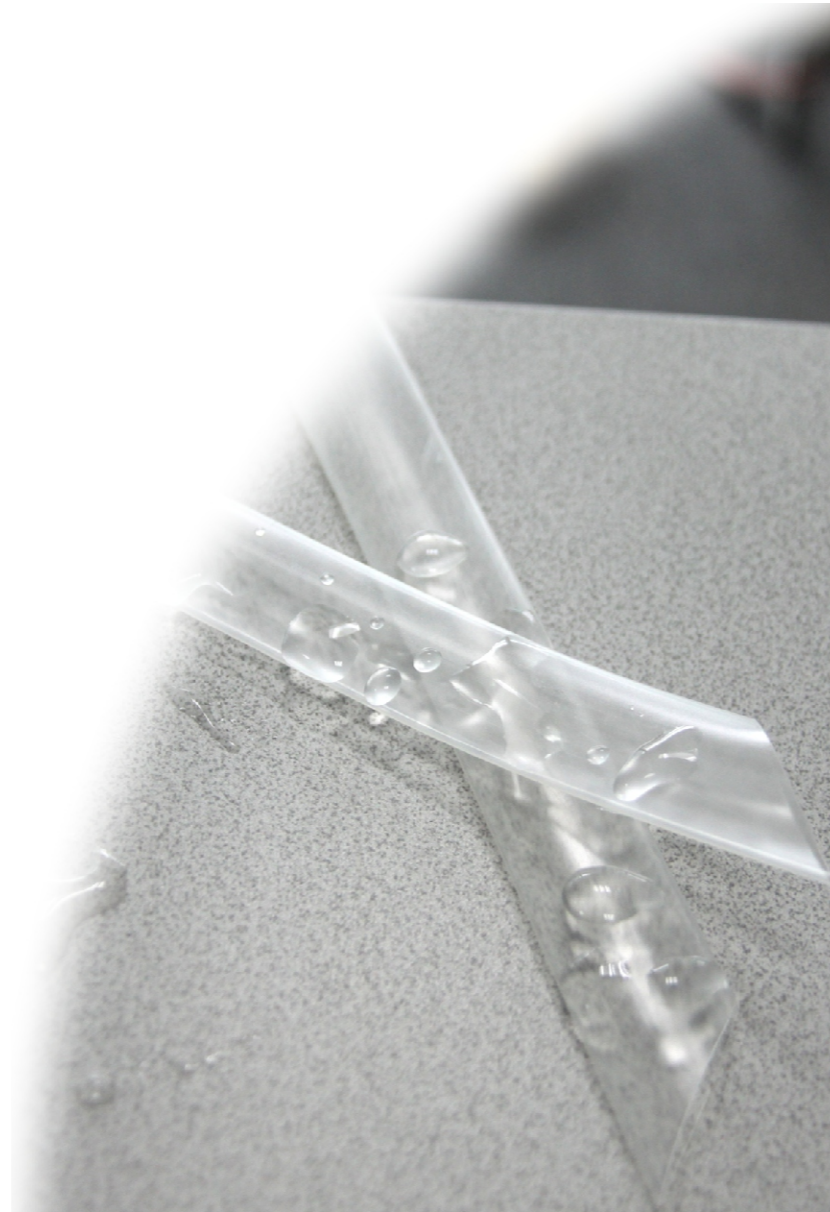
# F-175

## 175°C high temperature Chemical resistant PVDF tubing (Kynar® tube)

Seni-rigid thin wall Kynar®\* heat shrink tubing, ideal for electronic, automotive and military applications requiring protection and see-through inspection

### Features

- High withatand to abrasion and cut-through
- Excellent chemical and solvent resistance
- Continuous Operating Temperature:-55°C to 175°C
- Shrink Temperature:175°C
- \*Kynar®is a registered trademark of ATOFINA



### Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER mm	WALL THICKNESS mm	SPOOL LENGTH M/spool
3/64	1.2	1.2	0.6	0.25±0.05	200
1/16	1.6	1.6	0.8	0.25±0.05	200
3/32	2.4	2.4	1.2	0.25±0.05	200
1/8	3.2	3.2	1.6	0.25±0.05	100
3/16	4.8	4.8	2.4	0.25±0.05	100
1/4	6.4	6.4	3.2	0.30±0.05	100
3/8	9.5	9.5	4.8	0.30±0.05	50
1/2	12.7	12.7	6.4	0.30±0.05	50
3/4	19.1	19.1	9.5	0.42±0.05	50
1	25.4	25.4	12.7	0.50±0.05	50
1-1/2	38.1	38.1	19.1	0.50±0.05	50

### Technical Data

Item	Test Method	Unit	Specifications
Min. shrinktemperature	-	°C	155
Operation temperature	-	°C	-55~175
Specific Gravity	ASTM D792	g/cm3	1.78
Tensile strength	ASTM D2671	M Pa	≥25
Elongation at break	ASTM D2671	%	≥550
After Aging Elongation	250°C, 168h	%	≥500
Heat Shock	300°C, 4h	-	-No Cracking-
Cold Bend	-55°C, 4h	-	-No Cracking-
Volume Resistivity	ASTM D257	Ω . cm	≥10
Flammability Rating	UL-224	VW-1	Pass <sup>14</sup>

# RSFR-DR

## Diesel Resistant Heat Shrink Tubing

### Features

- Specially formulated for optimum high temperature fluid resistance, and long term heat resistance. Resistant to aviation and diesel fuels, hydraulic fluids and lubricating oils.
- Particularly suitable as a jacketing material for military ground vehicle cables and harnesses. It is also ideally suited for demands of motorsports cable harnesses.
- Operating temperature: -75°C to 150°C;
- Shrink temperature: 150°C
- Meet AMS-DTL-23053/16



Meet AMS-DTL-23053/16

### Dimension

SIZE		AS SUPPLIED	AFTER RECOVERY	
Inch	mm	INTERNAL DIAMETER MIN(mm)	INTERNAL DIAMETER MAX mm	WALL THICKNESS NOM mm
1/8	3.2	3.2	1.6	0.76±0.15
3/16	4.8	4.8	2.4	0.84±0.15
1/4	6.4	6.4	3.2	0.89±0.15
3/8	9.5	9.5	4.8	1.02±0.20
1/2	12.7	12.7	6.4	1.22±0.20
3/4	19.0	19.0	9.5	1.45±0.28
1	25.4	25.4	12.7	1.78±0.28
1-1/2	38.0	38.0	19.0	2.41±0.41
2	51.0	51.0	25.4	2.79±0.41
3	76.0	76.0	38.0	3.18±0.50

### Technical Data

Item	Test Method	Typical data
Tensile strength (MPa)	ASTM D638	≥12
Elongation (%)	ASTM D638	≥400
Heat ageing tensile strength aged (MPa)	ISO188 (160° C/168h)	≥8
Heat ageing elongation aged (%)	ISO188 (160° C/168h)	≥220
Fluid resistance tensile strength (MPa)	ISO37 24 hrs. (diesel 70°C, hydraulic 70°C, lubricant 100°C)	≥8
Fluid resistance elongation (%)	ISO37 24 hrs. (diesel 70°C, hydraulic 70°C, lubricant 100°C)	≥300
Shrink ratio in axial direction (%)	UL 224	±10
Heat shock	4hrs/215°C	No crack and dripping
Flammability	UL 224, VW-1	pass
Dielectric strength (KV/mm)	IEC 243	≥15

# F-200

## Viton Fluororubber heat shrink tubing

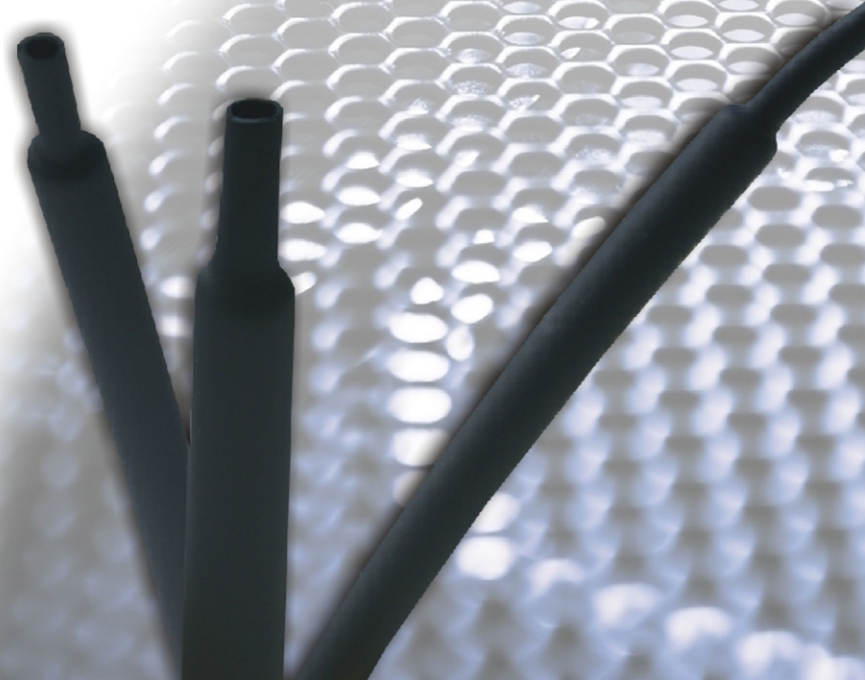
(High temperature resistant, oil resistant)

Description: High temperature resistant, oil resistant heat shrink tubing is made of special designed fluororubber which was cross-linked by radiation with scientific formula. It has excellent performance of high and low temperature resistance, oil resistance, and chemical resistance, especially fit for the situation which needs oil-resistance (such as airplane/engine of automobile, the electrical system and hydraulic system near the oil tank) and chemical solvent resistance, aim to provide insulation protection for the cable bundle and remove the stress, in order to prevent the electric equipment from outside damage.

## Features

- Keep soft and have no crack in the temperature range of -55°C-200°C
- Shrink temperature :175°C
- Operation temperature: -55°C-200°C  
Shrink ratio:2:1

\*Viton® is a registered trademark of Du Pont de Nemours and Co. Inc



## Dimensions

SIZE		AS SUPPLIED	AFTER RECOVERY(MM)		STANDARD PACKAGE
Inch	mm	INTERNAL DIAMETER mm	INTERNAL DIAMETER	WALL THICKNESS	SPOOL LENGTH M/spool
1/8	3.2	3.2	1.6	0.76	50
3/16	4.8	4.8	2.4	0.89	50
1/4	6.4	6.4	3.2	0.89	50
3/8	9.5	9.5	4.8	0.89	50
1/2	12.7	12.7	6.4	0.89	50
3/4	19.1	19.1	9.5	1.07	30
1	25.4	25.4	12.7	1.25	30
1-1/2	38.1	38.1	19.1	1.4	15
2	50.8	50.8	25.4	1.65	10

## Technical Data

Property	Test Method	Standard
Tensile strength (Mpa)	ASTM D 638	> 10
Breaking elongation (%)	ASTM D 638	> 300
Operation temperature range (°C)	IEC 216	-55 - 200
Heat aging / Breaking elongation (%)	168hrs /250°C	> 250
Heat shock	4hrs /330°C	No cracking
Disruptive strength (kV/mm)	ASTM D2671	> 9
Volume resistivity (Ω .cm)	ASTM D876	1X10 <sup>9</sup>

# WF

## PTFE Teflon tubing

Specially designed for protecting applications in extreme electrical Chemical and thermal environments



### Features

- Chemically inert
- High temperature resistance
- Continuous Operating
- Temperature: -80°C to 200°C
- Corrosion resistance (acid/alkali resistance, chemical reagents oil-proof)
- High pressure resistance
- Standard: UL224 VW-1C-UL CSA22.20FT
- UL file number: E203950



### Dimensions

AWG	I.D. (mm)	O.D. (mm)(S)	O.D. (mm)(T)	O.D. (mm)(L)	STANDARD PACKAGE (meter/coil)
30	0.30±0.10	0.80±0.10	0.70±0.10	0.60±0.10	305
28	0.38±0.10	0.88±0.10	0.78±0.10	0.68±0.10	305
26	0.46±0.10	0.96±0.10	0.86±0.10	0.76±0.10	305
24	0.56±0.10	1.16±0.10	1.06±0.10	0.86±0.10	305
23	0.66±0.10	1.26±0.10	1.16±0.10	0.96±0.10	305
22	0.71±0.10	1.31±0.10	1.21±0.10	1.01±0.10	305
21	0.81±0.10	1.41±0.10	1.31±0.10	1.11±0.10	305
20	0.86±0.10	1.66±0.10	1.46±0.10	1.16±0.10	305
19	0.96±0.20	1.76±0.20	1.56±0.20	1.26±0.20	200
18	1.07±0.20	1.87±0.20	1.67±0.20	1.37±0.20	200
17	1.19±0.20	1.99±0.20	1.79±0.20	1.49±0.20	200
16	1.34±0.20	2.14±0.20	1.94±0.20	1.64±0.20	153
15	1.50±0.20	2.30±0.20	2.10±0.20	1.80±0.20	153
14	1.68±0.20	2.48±0.20	2.28±0.20	2.08±0.20	100
13	1.93±0.20	2.73±0.20	2.53±0.20	2.33±0.20	100
12	2.16±0.25	2.96±0.25	2.76±0.25	2.56±0.25	100
11	2.41±0.25	3.21±0.25	3.01±0.25	2.81±0.25	100
10	2.26±0.25	3.49±0.25	3.29±0.25	3.09±0.25	100
9	3.00±0.25	4.00±0.25	3.80±0.25	3.40±0.25	100
8	3.38±0.25	4.38±0.25	4.18±0.25	3.78±0.25	100
7	3.76±0.25	4.76±0.25	4.56±0.25	4.16±0.25	100
6	4.22±0.25	5.22±0.25	5.02±0.25	4.80±0.25	100
5	4.72±0.25	5.72±0.25	5.52±0.25	5.32±0.25	50
4	5.28±0.30	6.28±0.30	6.08±0.30	5.88±0.25	1.0meter/pc
3	5.94±0.30	6.94±0.30	6.74±0.30	6.54±0.25	1.0meter/pc
2	6.68±0.30	7.68±0.30	7.48±0.30	7.28±0.25	1.0meter/pc
1	7.46±0.30	8.46±0.30	8.26±0.30	8.06±0.25	1.0meter/pc
0	8.38±0.30	9.38±0.30	9.18±0.30	8.98±0.25	1.0meter/pc

### Technical Data

Property	Standard	Property	Standard
Relative density	2.14~2.20	Melting point°C	327
Tensile strength(Mpa)	≥25	Operating temperature°C	-80~200
Tensile strength at yield(MPa)	≥11	Oxygen index(%)	>90
Elongation(%)	≥300	Water absorption(%)	≤0.01
Arc resistance	>300	Linear expansion coefficient (×105/°C)21~100°C	10
Hardness(Shore D)	59~63	Dielectric strength(kv/mm)	≥26
		Volume resistivity(Ω□cm)	1×10 <sup>14</sup>

# RSTFE

## Heat shrinkable Teflon Tubing

Heat Shrinkable Teflon Tube can be widely used in science & technology field, such as chemistry, mechanical industries, astronautic industry, vehicles, transformers, communications, etc.

### Features

- High performance for anti-corrosion (anti-acid/alkali/chemical/oil)  
High voltage resistant
- Operating Temperature: -80°C to 260°C
- Standard color: Clear, black, etc.
- Shrink ratio: 1.7:1, shrink temperature: >300°C



### Dimensions

SIZE		AS SUPPLIED (MM)	AFTER RECOVERY (MM)	
AWG	mm	INTERNAL DIAMETER	INTERNAL DIAMETER	WALL THICKNESS
30	0.86	≥0.86	≤0.38	0.25±0.04
28	0.97	≥0.97	≤0.46	0.25±0.04
26	1.17	≥1.17	≤0.56	0.25±0.04
24	1.27	≥1.27	≤0.64	0.25±0.04
22	1.55	≥1.55	≤0.80	0.25±0.04
20	1.95	≥1.95	≤0.97	0.30±0.05
18	2.35	≥2.35	≤1.17	0.30±0.05
16	2.95	≥2.95	≤1.45	0.35±0.05
14	3.65	≥3.65	≤1.82	0.35±0.05
12	4.55	≥4.55	≤2.26	0.35±0.05
10	5.65	≥5.65	≤2.80	0.38±0.05
8	7.05	≥7.05	≤3.55	0.40±0.06
6	8.75	≥8.75	≤4.40	0.40±0.06
4	10.95	≥10.95	≤5.45	0.40±0.06
2	13.75	≥13.75	≤6.90	0.40±0.06
0	17.15	≥17.15	≤8.56	0.40±0.06

### Technical data

Property	Test	Test data
Tensile strength/Mpa	IEC 811-1-1	19
Elongation at break%	IEC 811-1-1	200
Axial shrinkage rate	ASTM D 2671	±15% maximum
Secant factor/Mpa	ASTM D 2671	750 maximum
Anti-aging at hightemperature (300°C, 168h)	IEC811-1-2	NO Cracking, no flow
Adaptability at lowtemperature	ASTM D 2671	Minus 65, no cracking
Insulation force	VDE 0303 Part 2	26KV/mm
Volume resistance Ω.cm	VDE 0303 Part 3	10 <sup>19</sup>
Corrosion resistance	ASTM D 2671	Nocorrosion
Chemical resistance	ASTM D 2671	Nocorrosion
Chemical resistance		good
Corrosion resistance	VDE 0472	0.07%

# Identification Products For Wire & Cable

A comprehensive line of heat shrinkable sleeves, labels, tie-on cable markers to meet a broad range of needs including UL, CSA and Mil-Spec requirements, for a variety of Applications. WOER's identification sleeves are Heat shrinkable marking sleeves for wire and cable identification. Made from permanent, flame retarded, radiation crosslinked heat shrinkable polyolefin. This Identification sleeves are permanent immediately after printing and remain legible even when exposed to abrasion, aggressive cleaning solvents.

## DIN-M

**Halogen free identification sleeves**

## AMS-M, HMS-M

**fluid resistance at high temperature, identification sleeves DTL-23053/5, DTL-23053/6**

## Features

- Permanent identification sleeves
- computer printable
- 2:1 and 3:1 shrink ratio
- CSA Certified, UL Recognized
- Fast recovery for heat sensitive areas.



## Dimensions

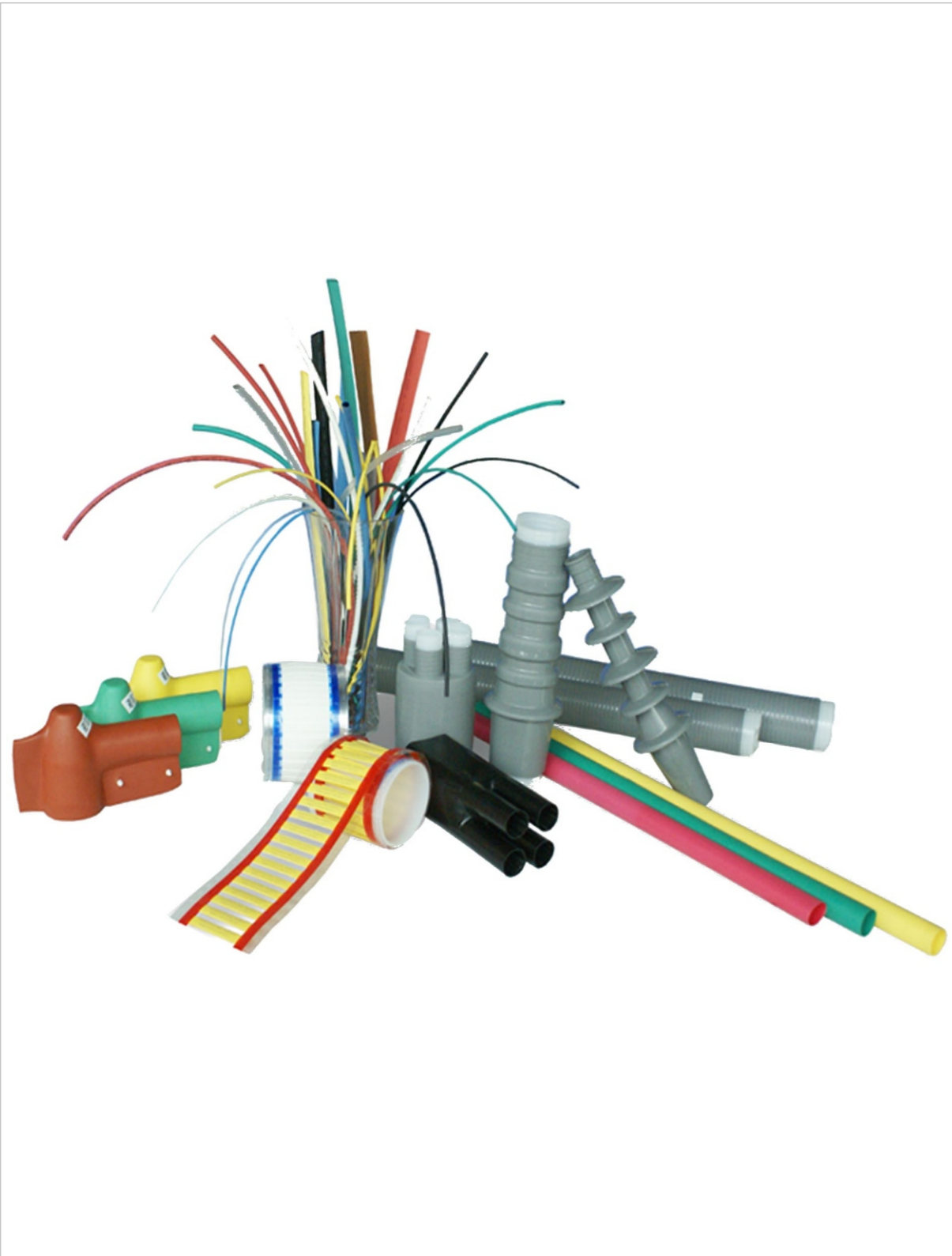
TABLE 1 SIZES FOR 2X NORMAL WALL

Part Number	Expanded As Supplied(mm)			Recovered After Heating(mm)	
	Inside Diameter, ID	Flat Width, W2	Double Wall Thickness	Inside Diameter, ID	Single Wall Thickness
HMS (AMS/DIN) - (H/M/CB) -2X-1. 6-*M-*	2.00±0.20	3.7±0.3	0.48±0.10	≤0.79	0.45±0.06
HMS (AMS/DIN) - (H/M/CB) -2X-2. 4-*M-*	2.79±0.20	5.0±0.3	0.48±0.10	≤1.18	0.49±0.06
HMS (AMS/DIN) - (H/M/CB) -2X-3. 2-*M-*	3.64±0.23	6.3±0.4	0.48±0.10	≤1.59	0.51±0.06
HMS (AMS/DIN) - (H/M/CB) -2X-4. 8-*M-*	5.26±0.25	8.9±0.4	0.49±0.10	≤2.36	0.54±0.06
HMS (AMS/DIN) - (H/M/CB) -2X-6. 4-*M-*	6.92±0.28	11.5±0.4	0.50±0.10	≤3.18	0.56±0.06
HMS (AMS/DIN) - (H/M/CB) -2X-9. 5-*M-*	10.2±0.32	16.7±0.5	0.51±0.11	≤4.75	0.59±0.06
HMS (AMS/DIN) - (H/M/CB) -2X-12. 7-*M-*	13.5±0.36	21.8±0.6	0.52±0.11	≤6.35	0.60±0.07
HMS (AMS/DIN) - (H/M/CB) -2X-19-*M-*	20.1±0.40	32.2±0.6	0.53±0.11	≤9.53	0.62±0.07
HMS (AMS/DIN) - (H/M/CB) -2X-25-*M-*	26.7±0.45	42.5±0.7	0.55±0.12	≤12.7	0.63±0.07
HMS (AMS/DIN) - (H/M/CB) -2X-38-*M-*	39.8±0.51	63.2±0.8	0.57±0.12	≤19.1	0.64±0.07
HMS (AMS/DIN) - (H/M/CB) -2X-51-*M-*	53.0±0.56	83.9±0.9	0.58±0.13	≤25.4	0.64±0.08
HMS (AMS/DIN) - (H/M/CB) -2X-76-*M-*	79.4±0.56	125.3±1.0	0.59±0.13	≤38.1	0.64±0.09

TABLE 2 SIZES FOR 3X NORMAL WALL

Part Number	Expanded As Supplied(mm)			Recovered After Heating(mm)	
	Inside Diameter, ID	Flat Width, W2	Double Wall Thickness	Inside Diameter, ID	Single Wall Thickness
HMS (AMS/DIN) - (H/M/CB) -3X-1. 6-*M-*	2.00±0.20	3.7±0.3	0.47±0.10	≤0.53	0.52±0.06
HMS (AMS/DIN) - (H/M/CB) -3X-2. 4-*M-*	2.79±0.20	5.0±0.3	0.47±0.10	≤0.79	0.57±0.06
HMS (AMS/DIN) - (H/M/CB) -3X-3. 2-*M-*	3.64±0.23	6.3±0.4	0.48±0.10	≤1.06	0.61±0.06
HMS (AMS/DIN) - (H/M/CB) -3X-4. 8-*M-*	5.26±0.25	8.9±0.4	0.49±0.10	≤1.59	0.67±0.06
HMS (AMS/DIN) - (H/M/CB) -3X-6. 4-*M-*	6.92±0.28	11.5±0.4	0.50±0.10	≤2.36	0.71±0.06
HMS (AMS/DIN) - (H/M/CB) -3X-9. 5-*M-*	10.2±0.32	16.7±0.5	0.52±0.11	≤3.18	0.77±0.06
HMS (AMS/DIN) - (H/M/CB) -3X-12. 7-*M-*	13.5±0.36	21.8±0.6	0.53±0.11	≤4.75	0.80±0.07
HMS (AMS/DIN) - (H/M/CB) -3X-19-*M-*	20.1±0.40	32.2±0.6	0.55±0.11	≤6.35	0.84±0.07
HMS (AMS/DIN) - (H/M/CB) -3X-25-*M-*	26.7±0.45	42.5±0.7	0.56±0.12	≤8.47	0.86±0.07
HMS (AMS/DIN) - (H/M/CB) -3X-38-*M-*	39.8±0.51	63.2±0.8	0.57±0.12	≤12.9	0.89±0.07
HMS (AMS/DIN) - (H/M/CB) -3X-51-*M-*	53.0±0.56	83.9±0.9	0.57±0.1	≤17.2	0.90±0.08
HMS (AMS/DIN) - (H/M/CB) -3X-76-*M-*	79.4±0.56	125.3±1.0	0.57±0.13	≤25.8	0.92±0.09





## Other Products

Specialty product lines have grown as woer continues with its commitment to be a full service and product supplier to key markets.

# WST-260

## Silicone Rubber Tube

General insulating protection for various household appliances, light fitting, machines, electronic instruments, etc.

### Features

- Operating Temperature: -60°C~200°C
- RoHS Compliant; UL approved for food industry
- Good flexibility and arc resistance performance
- Non- poisonous
- Red, Blue, White, Grey, Green, Clear  
(White color is flame- retardant)



### Dimensions

SIZE	INTERNAL DIAMETER	AVERAGE WALL THICKNESS(mm)				STANDARD PACKAGE
		2500V	4000V (mm)	6000V	7000V	
mm	mm					M (Coil)
0.8	0.8±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	200
1.0	1.0±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	200
1.5	1.5±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	200
2.0	2.0±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	100
2.5	2.5±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	100
3.0	3.0±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	100
3.5	3.5±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	100
4.0	4.0±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	100
4.5	4.5±0.10	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	100
5.0	5.0±0.20	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
5.5	5.5±0.20	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
6.0	6.0±0.20	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
6.5	6.5±0.20	0.5 ± 0.10	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
7.0	7.0±0.20	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
7.5	7.5±0.20	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
8.0	8.0±0.25	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
9.0	9.0±0.25	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	25
10.0	10.0±0.25	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
11.0	11.0±0.30	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	25
12.0	12.0±0.30	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	25
13.0	13.0±0.30	/	1.0 ± 0.15	1.5 ± 0.20	2.0 ± 0.25	50
14.0	14.0±0.30	/	/	1.5 ± 0.20	2.0 ± 0.25	50
15.0	15.0±0.30	/	/	1.5 ± 0.20	2.0 ± 0.25	25
20.0	20.0±0.30	/	/	/	2.0 ± 0.30	10

### Technical data

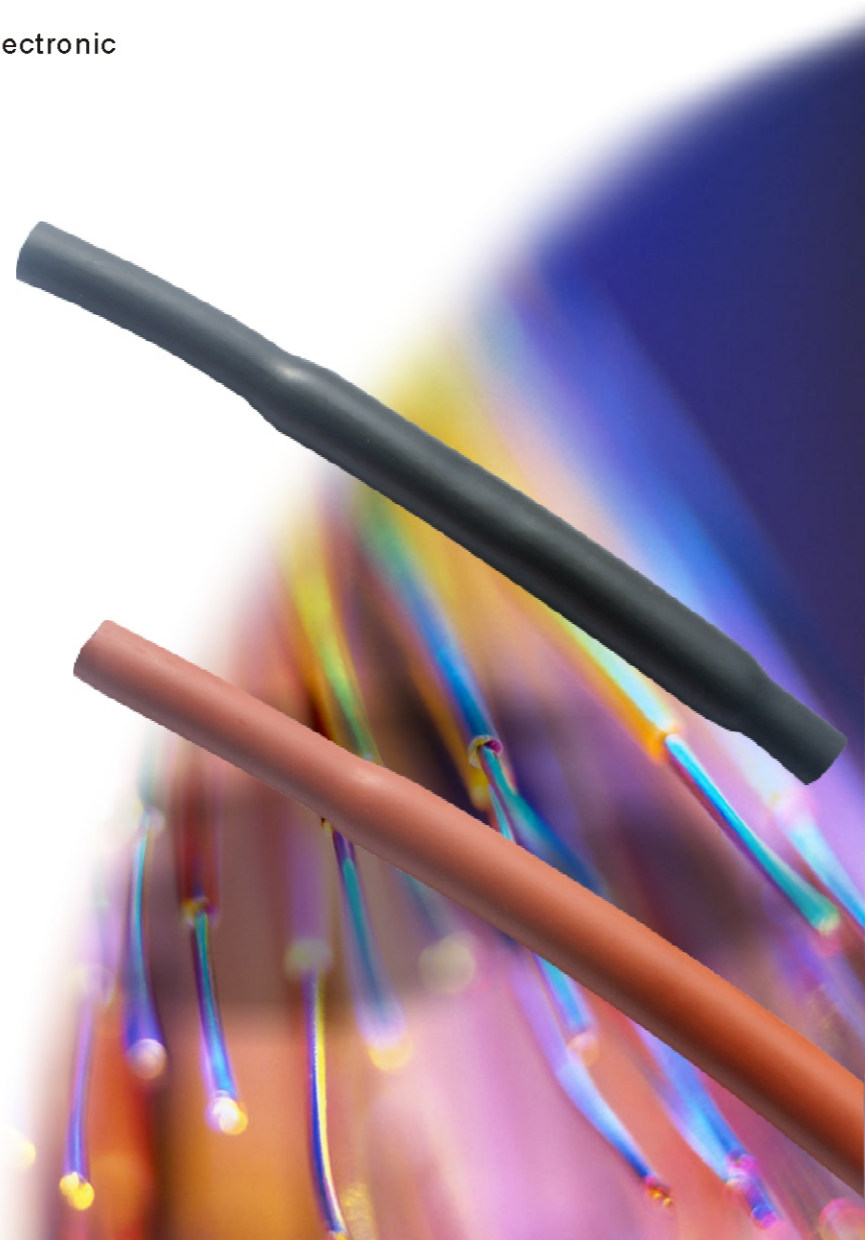
PROPERTY	TEST METHOD	TEST DATA
Dielectric strength (kV/mm)	IEC 243	≥18
Volume resistance (Ω·Cm)	IEC 93	≥1X10 <sup>14</sup>
Tensile Strength (Mpa)	ASTM D 412	≥3.5 Mpa
Elongation (%)	ASTM D 412	≥201
Flammability (White color only)	ISO 1210	FV-1

# WST-HS

## Flexible Silicone Rubber Heat-Shrinkable Tubing

### Features

- Provides cable jacketing harness protection, and strain relief for electronic components, semiconductor leads and wire splices, ideal for applications that require flexibility over a wide range of operating temperatures.
- Installation
- Minimum shrink temperature: 100°C
- Minimum full recovery temperature: 135°C
- Operating Temperature Range -70°C to 180°C



### Dimensions

Size (mm)	Minimum Expanded AS Supplies ID(mm)	Maximum Recovered After Recovery		Packing	Application Range (mm)
		ID(mm)	Wall Thickness		
1.5	≥1.5	≤0.9	≥0.6	50	1~1.4
2.0	≥2	≤1.2	≥0.8	50	1.3~1.9
3.0	≥3	≤1.8	≥0.8	50	1.9~2.9
4.0	≥4	≤2.5	≥1.0	50	2.6~3.9
5.0	≥5	≤3.0	≥1.0	50	3.1~4.9
6.0	≥6	≤3.6	≥1.0	50	3.7~5.9
8.0	≥8	≤5.0	≥1.0	20	5.1~7.9
10.0	≥10	≤6.0	≥1.5	20	6.1~9.5
12.0	≥12	≤7.2	≥1.5	20	7.3~11.5
15.0	≥15	≤9.0	≥1.5	2020	9.1~14.5
17.0	≥17	≤10.5	≥1.5	20	11~16.5
20.0	≥20	≤12.5	≥1.5	10×1	13~19
25.0	≥25	≤15.0	≥2.0	10×1	16~24
30.0	≥30	≤18.5	≥2.0	10×1	19~29

### Technical data

Property	Test	Test data
Tensile strength/Mpa	IEC 811-1-1	19
Elongation at break%	IEC 811-1-1	200
Axial shrinkage rate	ASTM D 2671	±15% maximum
Secant factor/Mpa	ASTM D 2671	750 maximum
Anti-aging at hightemperature(300°C, 168h)	IEC811-1-2	NO Cracking, no flow
Adaptability at lowtemperature	ASTM D 2671	Minus 65, no cracking
Insulation force	VDE 0303 Part 2	26KM/mm
Volume resistance Ω.cm	VDE 0303 Part 3	10 <sup>19</sup>
Corrosion resistance	ASTM D 2671	Nocorrosion
Chemical resistance	ASTM D 2671	Nocorrosion
Chemical resistance		good
Corrosion resistance	VDE 0472	0.07%

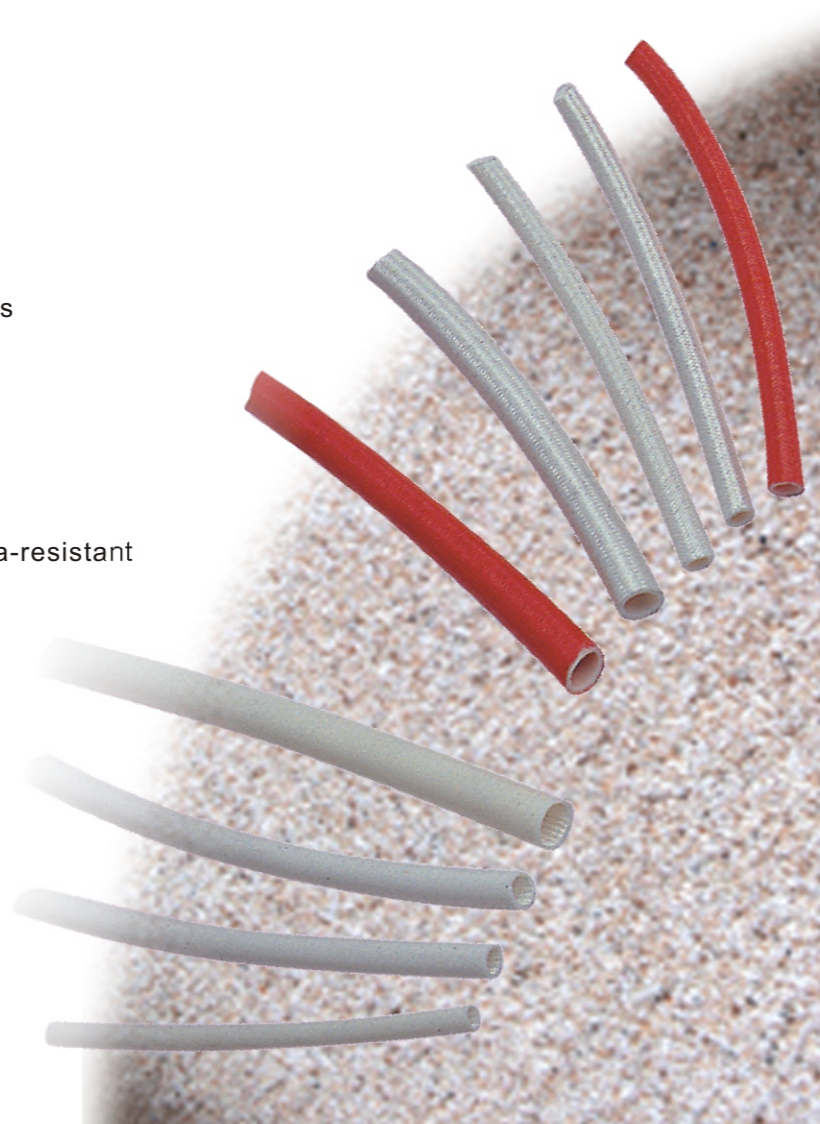
# SRG-W&SRG-N

## Silicone Rubber Braided Tube

General insulating protection for various household appliances, light fitting, machines, electronic instruments, etc.

### Features

- Two types: Inner fiberglass outside braided silicone rubber (SRG-N)  
Inner silicone rubber outside fiberglass braided (SRG-W)
- Operating Temperature: -60°C~200°C
- RoHS Compliant ; UL approved
- Good flexibility, arc resistance, corona-resistant
- Standard Color: White  
(Other colors upon request )



### Dimensions (SRG-N)

SIZE (MM)	INTERNAL DIAMETER(MM)	AVERAGE WALL THICKNESS (MM)			STANDARD PACKAGE (M/SPOOL)
		1500V, 2500V	4000V	7000V	
0.5	0.5 ± 0.20	0.20 ± 0.05	0.40 ± 0.05	0.45 ± 0.05	100
1.0	1.0 ± 0.20	0.20 ± 0.05	0.40 ± 0.05	0.45 ± 0.05	100
1.5	1.5 ± 0.20	0.20 ± 0.05	0.40 ± 0.05	0.45 ± 0.05	100
2.0	2.0 ± 0.20	0.20 ± 0.05	0.40 ± 0.05	0.45 ± 0.05	100
2.5	2.5 ± 0.20	0.20 ± 0.05	0.40 ± 0.05	0.50 ± 0.05	100
3.0	3.0 ± 0.25	0.23 ± 0.05	0.40 ± 0.05	0.50 ± 0.05	100
3.5	3.5 ± 0.25	0.23 ± 0.05	0.45 ± 0.05	0.55 ± 0.05	100
4.0	4.0 ± 0.25	0.23 ± 0.05	0.45 ± 0.05	0.55 ± 0.05	100
4.5	4.5 ± 0.25	0.23 ± 0.05	0.45 ± 0.05	0.55 ± 0.05	100
5.0	5.0 ± 0.35	0.30 ± 0.05	0.45 ± 0.05	0.55 ± 0.05	100
6.0	6.0 ± 0.35	0.30 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	100
7.0	7.0 ± 0.50	0.35 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	50
8.0	8.0 ± 0.50	0.35 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	50
9.0	9.0 ± 0.50	0.35 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	50
10.0	10.0 ± 0.70	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	50
12.0	12.0 ± 0.70	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
13.0	13.0 ± 0.70	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
14.0	14.0 ± 0.70	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
15.0	15.0 ± 0.80	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
16.0	16.0 ± 0.80	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
17.0	17.0 ± 0.80	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
18.0	18.0 ± 0.80	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
19.0	19.0 ± 0.80	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30
20.0	20.0 ± 0.80	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	30

### Dimensions (SRG-W)

Size (mm)	INTERNAL DIAMETER(MM)	Average Wall Thickness (mm)			STANDARD PACKAGE (M/SPOOL)
		1500V, 2500V	4000V	7000V	
1.0	1.0 ± 0.15	0.20 ± 0.05	0.40 ± 0.05	0.45 ± 0.05	100
2.0	2.0 ± 0.15	0.20 ± 0.05	0.40 ± 0.05	0.45 ± 0.05	100
3.0	3.0 ± 0.15	0.23 ± 0.05	0.40 ± 0.05	0.50 ± 0.05	100
4.0	4.0 ± 0.15	0.23 ± 0.05	0.45 ± 0.05	0.55 ± 0.05	100
5.0	5.0 ± 0.20	0.30 ± 0.05	0.45 ± 0.05	0.55 ± 0.05	100
6.0	6.0 ± 0.20	0.30 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	100
7.0	7.0 ± 0.20	0.35 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	50
8.0	8.0 ± 0.25	0.35 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	50
9.0	9.0 ± 0.25	0.35 ± 0.05	0.50 ± 0.05	0.60 ± 0.05	50
10.0	10.0 ± 0.25	0.43 ± 0.05	0.60 ± 0.05	0.60 ± 0.05	50

### Technical Data

Property	Test Method	Standard Required
Dielectric strength (kV/mm)	IEC 243	≥18
Volume resistance ( Ω · Cm)	IEC 93	≥1X10 <sup>14</sup>
Tensile Strength (Mpa)	ASTM D412	≥4 Mpa
Elongation (%)	ASTM D412	≥201
Flammability (White color only)	ISO 1210	FV-1

# WOLVO

## Skidproof Heat Shrink Tubing

Polyolefine material, excellent application for various fishing tackles, sport fittings, and equipments and commodities with hand device.

### Features

- Operating Temperature: -55°C~105°C
- Shrink Temperature: Started at 70°C, full recovery at 110°C
- RoHS Compliant ;
- Good flexibility, abrasion resistant and anti-skid performance
- Standard Color: Black, Red, Yellow, White, Green, Blue



### Dimensions

SIZE	AS SUPPLIED(MM)		AFTER RECOVERY		STANDARD PACKAGE (M/PCS)
	INTERNAL DIAMETER(MM)	AVERAGE THICKNESS	MAX INTERNAL DIAMETER(MM)	AVERAGE THICKNESS	
15	≥15	0.45±0.15	8	0.85±0.15	1.0
20	≥20	0.50±0.15	11	0.90±0.15	0.8/1.0/1.6
22	≥22	0.50±0.15	12.5	0.90±0.15	0.8/1.0/1.6
25	≥25	0.50±0.15	14.5	1.00±0.15	0.8/1.0/1.6
28	≥28	0.50±0.15	15.5	1.00±0.15	0.8/1.0/1.6
30	≥30	0.60±0.15	17.5	1.20±0.15	0.8/1.0/1.6
35	≥35	0.60±0.15	20	1.20±0.15	0.8/1.0/1.6
40	≥40	0.60±0.15	23	1.20±0.15	0.8/1.0/1.6
45	≥45	0.65±0.15	25	1.25±0.15	0.8/1.0/1.6
50	≥50	0.65±0.15	28	1.25±0.15	0.8/1.0/1.6

### Technical Data

Property	Test Method	Standard Required
Longitudinal Elongation (%)	ASTM D412	≤8
Tensile Strength (Mpa)	ASTM D412	10.4
Elongation (%)	ISO 1210	200

# WSS

## Expandable Sleeve

PET (polyethylene terephthalate) material, excellent application for various bundle wires, wiring harness and hoses protection, etc

### Features

- Good flexibility, convenient installation
- Standard Color: Black, Red, Yellow, White, Green, Blue or upon request.



### Dimensions

Size (mm)	Compos. Nx/mm	Diameter (mm)	Max. Diameter (mm)	Standard Package (m/reel)
3	1/0.25	3.0	5.0	1000
	1/0.25	4.0	6.0	1000
4	1/0.25	5.0	7.0	1000
	1/0.25	6.0	8.0	1000
5	3/0.20	6.0	8.0	800
	1/0.25	7.0	9.0	800
7	3/0.20	7.0-8.0	10.0	500
	1/0.25	8.0	10.0	500
8	3/0.20	8.0	10.0	500
	1/0.25	9.0	11.0	500
9	3/0.20	9.0	11.0	500
	1/0.25	10.0	12.0	500
10	3/0.20	10.0	12.0	500
	3/0.20	12.0	14.0	500
12	3/0.25	12.0	14.0	500
	3/0.20	14.0	16.0	500
14	3/0.25	14.0	16.0	500
	3/0.20	16.0	18.0	500
16	3/0.25	16.0	18.0	500
	3/0.20	18.0	20.0	400
18	3/0.25	18.0	20.0	400
	3/0.20	20.0	22.0	400
20	3/0.25	20.0	22.0	400
	3/0.20	22.0	24.0	400
22	3/0.25	22.0	24.0	400
	3/0.20	24.0	26.0	400
24	3/0.25	24.0	26.0	400

### Technical Data

Property	Test Method	Standard Value	
		Insullated breakout	Oil resistant breakout
Operating temperature	ICE 216	-55℃~100℃	-20℃~100℃
Tensile strength	ASTM D 2671	≥13MPa	≥12MPa
Elongation	ASTM	≥300%	≥300%
Tensile strength after thermal aging	ASTM	≥11MPa	≥10MPa
Elongation after thermal aging	120℃/168hrs	≥230%	≥230%
Water absorption	ASTM D 2671	≤0.1%	≤0.1%
Volume resistivity	120℃/168hrs	≥1×10 <sup>14</sup> Ω□cm	≥1×10 <sup>14</sup> Ω□cm
Oil resistance	ISO 62	-----	≥10MPa
(Tensile strength after dipping)	ICE 93	-----	≥10MPa
Oil resistance	ASTM D 2671	-----	≥230%
(Elongation at break after dipping)	70# cable oil/168hrs	-----	≥230%
Dielectric strength	ICE243	≥20kv/mm	≥20kv/mm

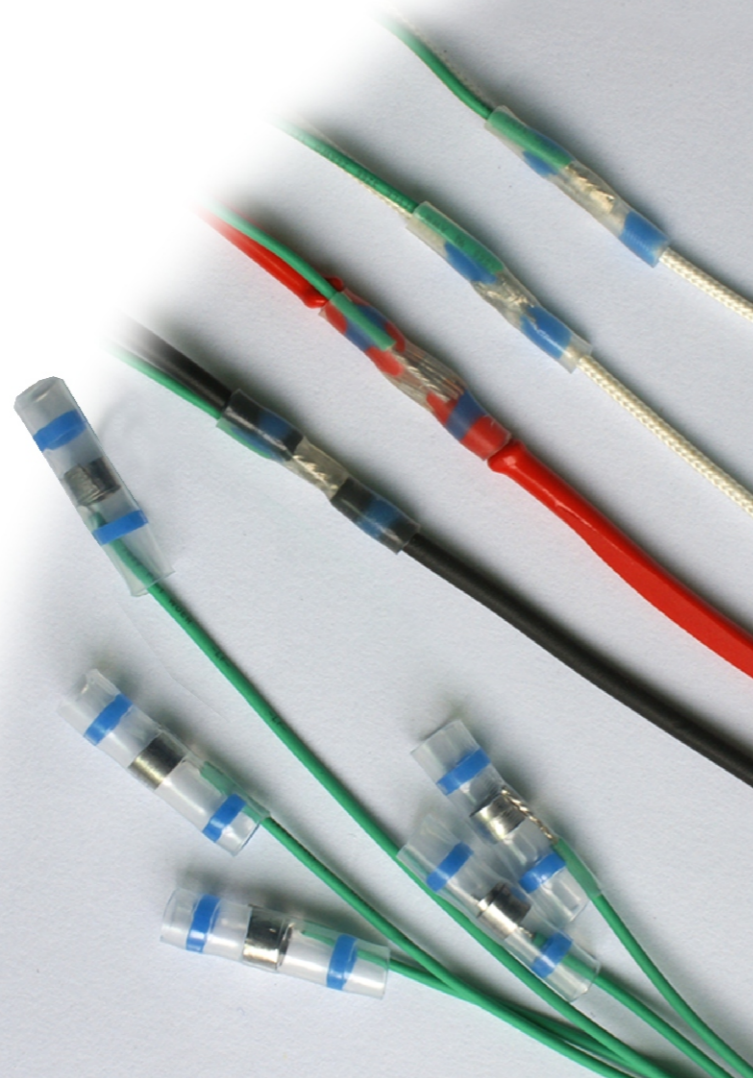
# SWT

## Conductor Splicer

Conductor Splicer made of Non-flame-retardant clear heat shrink tubing with soldering tin inside.

### Features

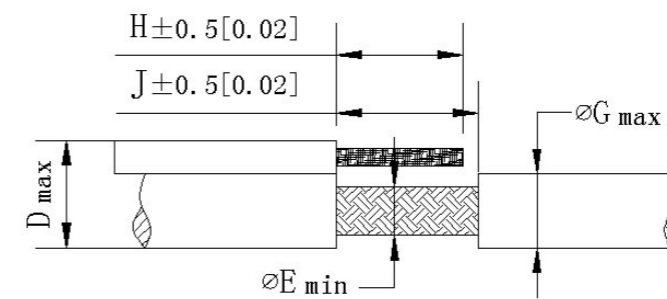
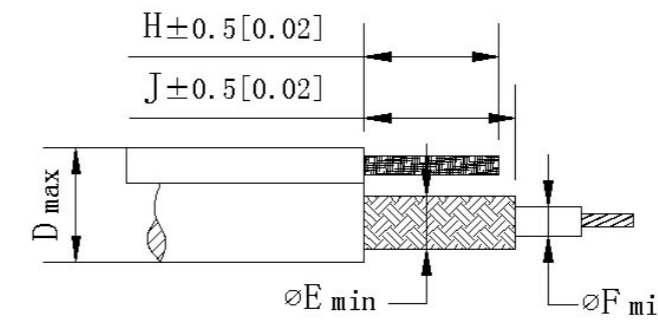
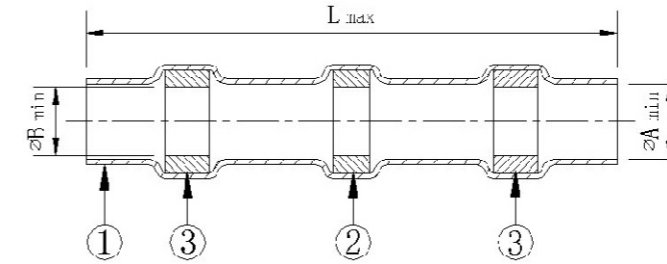
- Shrink Temperature: Start at 70°C and fully recovered at 150°C(L)/180°C(M)/220°C(H)
- Easily used and effectively relieve the welding stress.



### Dimensions

SIZE	DIMENSIONS				APPLICABLE CABLE SIZE				
	ΦA min	ΦB min	L max	D max	ΦE min	ΦF min	ΦG max	H±0.5	J±0.5
SWT-3.0-X	2.5	3.0	24.5	3.0	1.5	1.0	2.5	6.0	7.0
SWT-4.5-X	4.0	4.5	29.3	4.5	2.0	1.5	4.0	8.0	9.0
SWT-6.0-X	5.5	6.0	32.0	6.0	3.3	2.8	5.5	9.0	10.0
SWT-7.0-X	6.5	7.0	32.5	7.0	3.5	2.8	6.5	10.0	11.0
SWT-8.5-X	8.0	8.5	35.5	8.5	4.0	3.5	8.0	11.0	12.0
SWT-9.0-X	8.5	9.0	35.5	9.0	4.5	4.0	8.5	12.0	13.0
SWT-11.0-X	10.2	11.0	35.5	11.0	5.5	5.0	10.2	13.0	14.0
SWT-13.0-X	12.0	13.0	40.0	13.0	6.5	6.0	12.0	14.0	15.0

"X" means temperature rating. H220°C, M180°C, L150°C



# WEPDMC

## EPDM Cold Shrink Tube

EPDM Cold Shrink Tubes are a series of open-ended, tubular rubber sleeves, which are factory expanded and assembled onto a removable core. They are supplied for field installation in this pre-stretched condition. The core is removed after the tube has been positioned for installation over an in line connection, terminal lug, etc., allowing the tube to shrink and form a waterproof seal. The insulating tube is made of EPDM rubber, which contains no chlorides or sulphurs.

### Features

- Simple installation, requires only workman's hands
- Accommodates a wide range of cable sizes
- No torches or heat required
- Good thermal stability
- Seals tight, retains its resiliency and pressure even after prolonged years of ageing and exposure
- Excellent wet electrical properties
- Improved tough rubber formulation to with stand rough backfilling
- Waterproof.
- Resists fungus
- Resists acids and alkalis
- Resists ozone and ultraviolet light



### Dimensions

Woer code	Diameter(mm)	Range of cable outer diameter, mm(inch) (min - max)	Relaxed tube length,mm(inch)
2320-6	20	8-14 (0.31''-0.55'')	152 (6'')
2320-7	20	8-14 (0.31''-0.55'')	178 (7'')
2525-7	25	10-20 (0.39''-0.79'')	178 (7'')
2525-11	25	10-20 (0.39''-0.79'')	279 (11'')
2532-11	32	12-28 (0.47''-1.10'')	279 (11'')
2635-9	35	14-30 (0.55''-1.18'')	229 (9'')
2635-11	35	14-30 (0.55''-1.18'')	279 (11'')
2740-6	40	17.5-33 (0.69''-1.30'')	152 (6'')
2740-8	40	17.5-33 (0.69''-1.30'')	203 (8'')
2740-10	40	17.5-33 (0.69''-1.30'')	254 (10'')
2740-12	40	17.5-33 (0.69''-1.30'')	305 (12'')
2740-16	40	17.5-33 (0.69''-1.30'')	406 (16'')
2853-6	53	25-46 (0.98''-1.81'')	152 (6'')
2853-12	53	25-46 (0.98''-1.81'')	305 (12'')
2853-18	53	25-46 (0.98''-1.81'')	457 (18'')
2970-6	70	32-65 (1.26''-2.56'')	152 (6'')
2970-12	70	32-65 (1.26''-2.56'')	305 (12'')
2970-14	70	32-65 (1.26''-2.56'')	355 (14'')
3104-9	104	43-94 (1.69''-3.70'')	229 (9'')

### Technical data

Property	Test data
100% Modulus ASTM D 412	1.17 Mpa
300% Modulus ASTM D 412-75	4.7 Mpa
Ultimate TensileASTM D 412-75 Original	11.6 Mpa
Ultimate Elongation ASTM D 412-75 Original	635%
Dielectric Strength ASTM D 149-75 Original @ 1.78mm	19.1 MV/m
7 days in H 02 at 90°C	18.1MV/m
Dielectric Constant Original	5.0
7 days 90°C (H 0)2	5.6



# WEPDMH

## Flexible EPDM Heat-Shrinkable Tubing

Suitable for jacketing and protection to cables, pipes, and connectors. Used for protecting solder joints, wires, cables, terminals, connectors and various electronic apparatus

### Features

- Environmental friendly
- Outstanding low and high-temperature
- Flexible & good hand feeling
- Higher shrink ratio than heat shrinkable silicone tubes
- Resists acids and alkalis
- Resists chemical solvent
- Resists ultraviolet light and weather aging
- Resists ozone

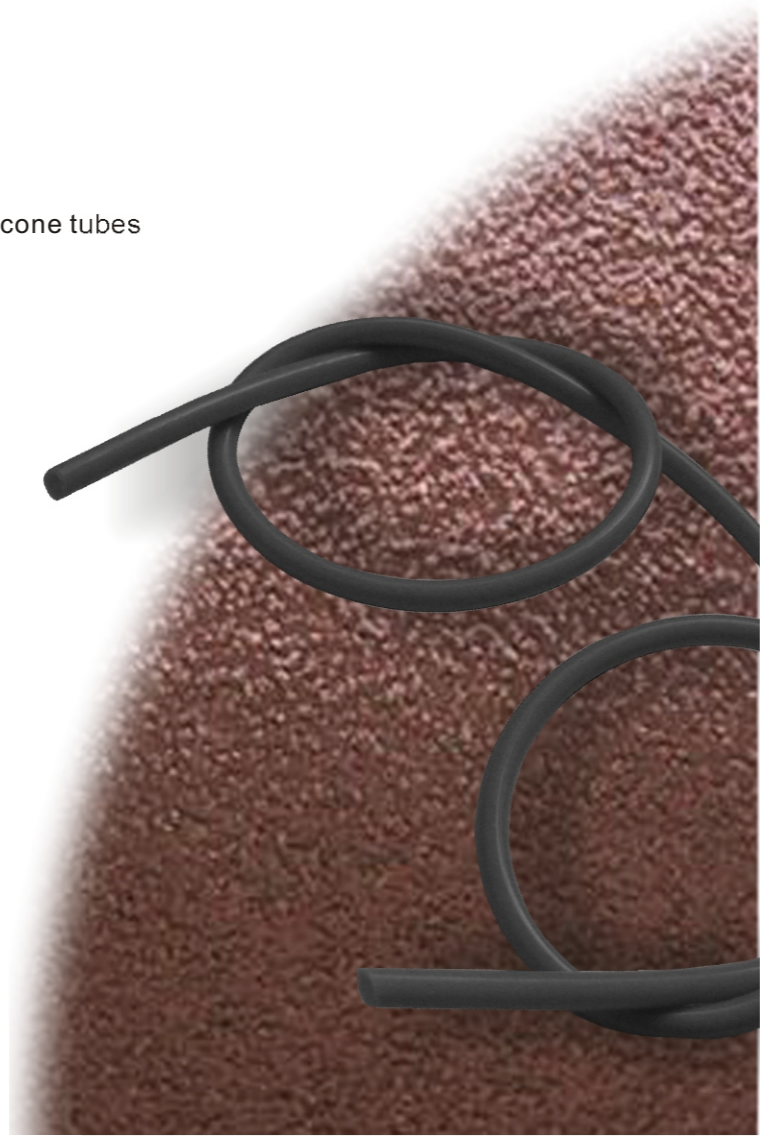
Minimum shrink temperature: 100 °C

Minimum full recovery temperature :135 °C

Operating Temperature Range:-55 to 150 °C

Shrink Ratio: 2:1

Color Standard Black



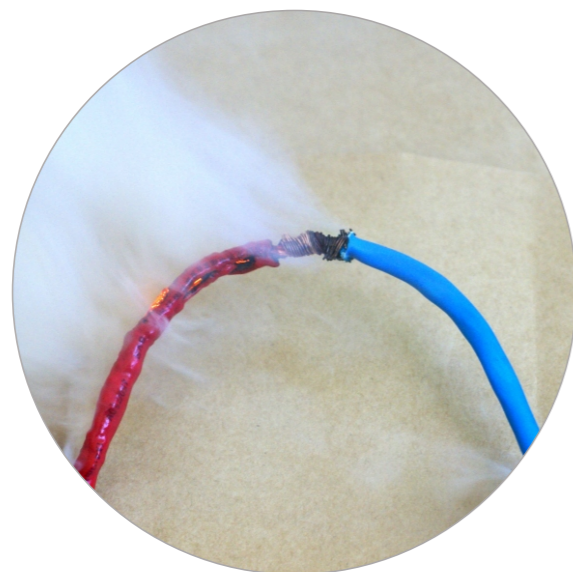
### Dimensions

Size (mm)	Inside Diameter(mm)		Wall Thickness After Recovery(mm)
	As Supplied	After Recovery	
Φ 6	6.5	3	0.8±0.10
Φ 8	8.5	4	0.9±0.10
Φ 10	10	5	1.2±0.10
Φ 12	12	6	1.2±0.10
Φ 16	16	8	1.5±0.15
Φ 20	20	10	1.5±0.15
Φ 30	30	15	1.8±0.15
Φ 40	40	20	2.0±0.15
Φ 50	50	25	2.0±0.20
Φ 60	60	30	2.0±0.30
Φ 70	70	35	2.0±0.30

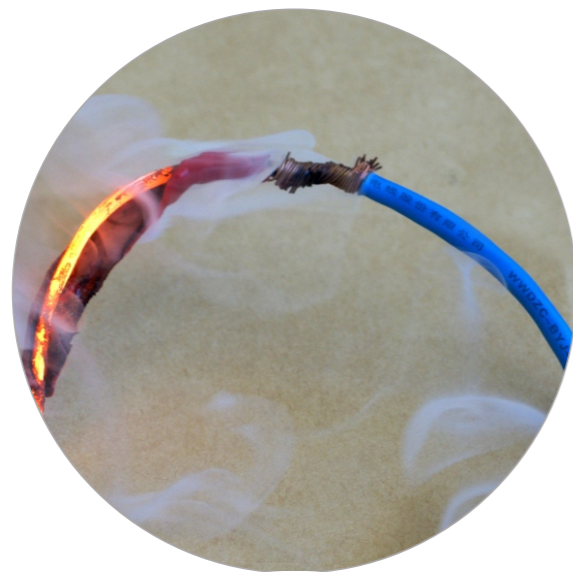
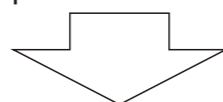
Wall thickness will be less if tubing recovery is restricted during shrinkage.

### Technical data

Property	Test data
Specific Gravity (25 °C)	1.1
Ultimate Tensile Strength (Mpa) Before aging	≥14
Ultimate Tensile Strength (Mpa) 180°C×168h	≥ 9.8
Ultimate Elongation (%)	≥400
Tear Strength (N/mm)	≥60
Volume Resistivity: (Ω.cm)	2×10 <sup>13</sup>
Dielectric breakdown (kv/mm)	≥12



set up an electric circuit



Red:common wire  
Blue:our wire

## Cables & Wires

# UL 3321 Cross-linked PE Insulated Wire

For use in ranges of water heaters, clothes dryers, rotisseries,cookers, toasters.

Leads for transformers, lighting, ballasts and motors.

Internal wiring of electric heating, gas heating, cooking equipment and hairdressing equipment.

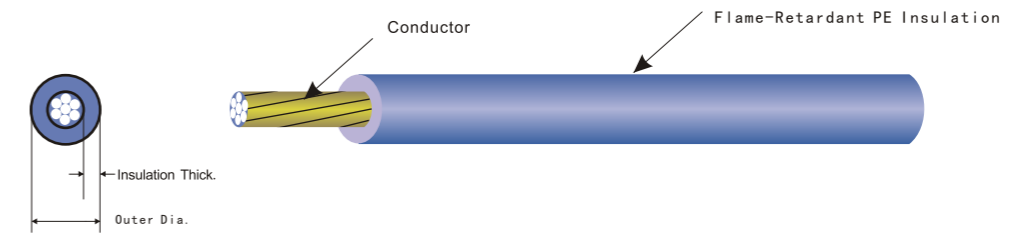
## Features

- Temperature Rating:150 °C
- Voltage Rating:600 V
- Standard: UL758, UL1581 & CSA C22.2 NO.210.2,IEC60754-2,RoHS
- Tinned or bare, stranded or solid copper conductor,30-4/0AWG.
- Cross-linked flame retardant PE insulated.
- Uniform insulation thickness to ensure easy stripping and cutting.
- Passes UL VW-1 and CSA Ft1 vertical flame test



## Dimensions

AWG	Conductor No. / mm	Conductor Dia.(mm)	Insulation Thickness(mm)	Outer Dia. (mm)	Maximum Resistance at 20 °C (Ω/Km)	Standard package (M/spool)
24	11/0.16	0.61	0.80±0.10	2.21±0.20	94.2	305
22	17/0.16	0.76	0.80±0.10	2.36±0.20	59.4	305
20	26/0.16	0.94	0.80±0.10	2.54±0.20	37.4	305
18	16/0.254	1.18	0.80±0.10	2.78±0.20	23.5	305
16	26/0.254	1.50	0.80±0.10	3.10±0.20	14.7	305
14	41/0.254	1.90	0.80±0.10	3.50±0.20	9.25	305
12	65/0.254	2.40	0.80±0.10	4.00±0.20	5.75	305
10	105/0.254	3.00	0.80±0.10	4.60±0.20	3.62	305



E227566 **AWM** STYLE 3321 XX AWG 150C 600V VW-1-- **AWM** I A 150C 600V FT1 -LF- WOER

## Colors:

Black, brown, red,orange, yellow, green, blue, violet , grey , white.

## Similar product:

E227566 **AWM** STYLE 3289 XX AWG 150C 600V VW-1-- **AWM** I A 150C 600V FT1 -LF- WOER

# UL 3266 Halogen Free Cross-linked PE Insulated Wire

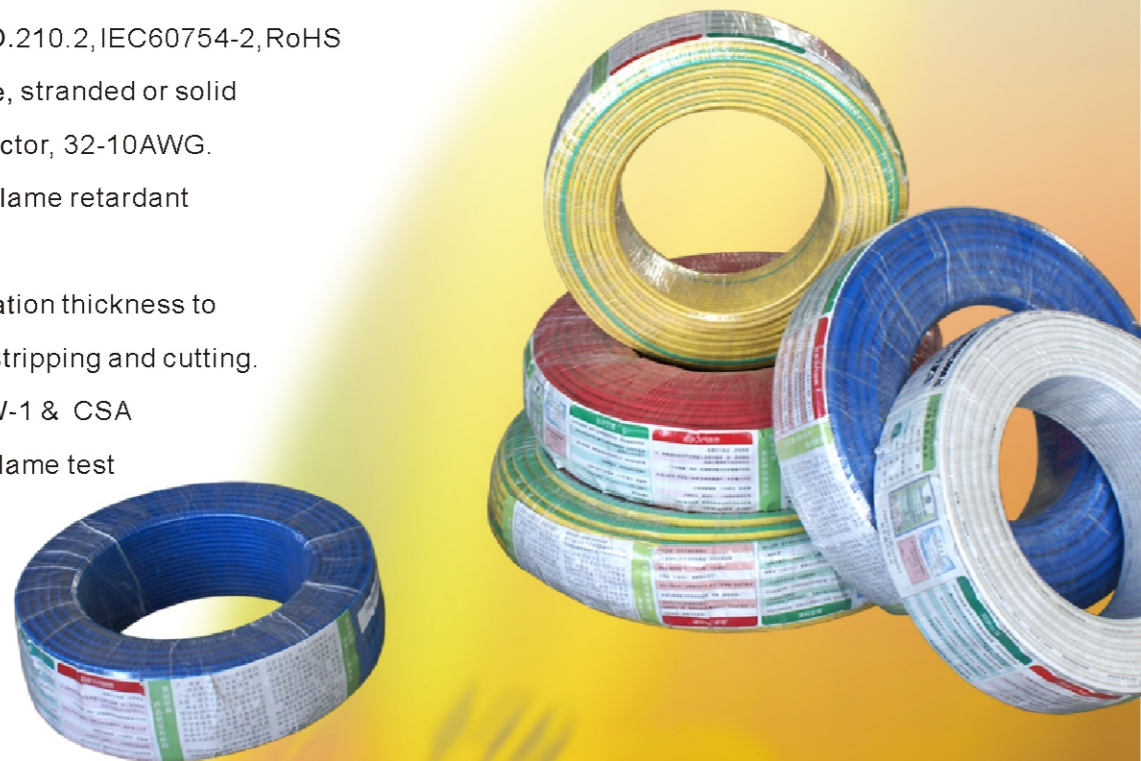
For use in ranges of water heaters, clothes dryers, rotisseries,cookers, toasters.

Leads for transformers, lighting, ballasts and motors.

Internal wiring of electric heating, gas heating, cooking equipment and hairdressing equipment.

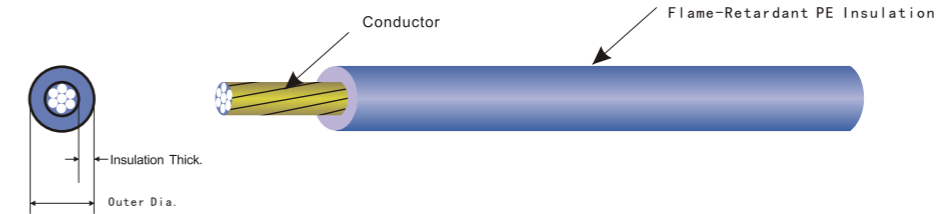
## Features

- Temperature Rating:125 °C
- Voltage Rating:300 V
- Standard: UL758, UL1581 & CSA C22.2 NO.210.2,IEC60754-2,RoHS
- Tinned or bare, stranded or solid copper conductor, 32-10AWG.
- Cross-linked flame retardant PE insulated.
- Uniform insulation thickness to ensure easy stripping and cutting.
- Passes UL VW-1 & CSA FT 1 vertical flame test



## Dimensions

AWG	Conductor No. / mm	Conductor Dia.(mm)	Insulation Thickness(mm)	Outer Dia. (mm)	Maximum Resistance at 20 °C (Ω/Km)	Standard Length (meter/ coil)
30	7/0.10	0.30	0.40±0.05	1.10±0.15	381	610
28	7/0.127	0.38	0.40±0.05	1.18±0.15	239	610
26	7/0.16	0.48	0.40±0.05	1.28±0.15	150	610
24	11/0.16	0.61	0.40±0.05	1.41±0.15	94.2	610
22	17/0.16	0.76	0.40±0.05	1.56±0.15	59.4	610
20	26/0.16	0.94	0.40±0.05	1.74±0.15	37.4	610
18	16/0.254	1.18	0.40±0.05	1.98±0.15	23.5	305
16	26/0.254	1.50	0.40±0.05	2.30±0.15	14.7	305



E227566 AWM STYLE 3266 XX AWG 125C 300V VW-1-- AWM I A/B 125C 300V FT1 -LF- WOER  
 E227566 AWM STYLE 3266 XX AWG 125C 300V VW-1-- AWM I A/B 125C 300V FT1 -LF- -HF- WOER

## Colors:

Black, brown, red,orange, yellow, green, blue, violet , grey , white.

## Similar products

E227566 AWM STYLE 3265 XX AWG 125C 150V VW-1-- AWM I A/B 125C 150V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3363 XX AWG 125C 300V VW-1-- AWM I A/B 125C 300V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3271 XX AWG 125C 600V VW-1-- AWM I A/B 125C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3298 XX AWG 125C 600V VW-1-- AWM I A/B 125C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3331 XX AWG 125C 600V VW-1-- AWM I A/B 125C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3351 XX AWG 125C 600V VW-1-- AWM I A/B 125C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3352 XX AWG 125C 600V VW-1-- AWM I A/B 125C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3173 XX AWG 125C 600V VW-1-- AWM I A/B 125C 600V FT1 -LF- -HF- WOER

# UL 3385 Halogen Free Cross-linked PE Insulated Wire

For use in ranges, water heaters, clothes dryers, rotisseries,cookers, toasters.

Leads for transformers, lighting, ballasts and motors.

Internal wiring of electric heating, gas heating, cooking equipment and hairdressing equipment.

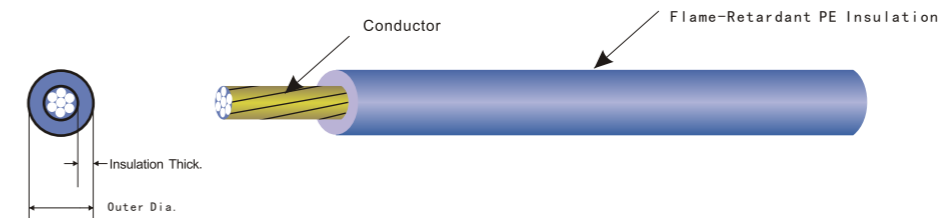
## Features

- Temperature Rating:105 °C
- Voltage Rating:300 V
- Standard: UL758, UL1581 & CSA C22.2 NO.210.2,IEC60754-2,RoHS
- Tinned or bare, stranded or solid copper conductor, 32-10AWG.
- Cross-linked flame retardant PE insulated.
- Uniform insulation thickness to ensure easy stripping and cutting.
- Passes UL VW-1 & CSA FT 1 vertical flame test



## Dimensions

AWG	Conductor No. / mm	Conductor Dia.(mm)	Insulation Thickness(mm)	Outer Dia. (mm)	Maximum Resistance at 20 °C (Ω/Km)	Standard Length (meter/ coil)
30	7/0.10	0.30	0.40±0.05	1.10±0.15	381	610
28	7/0.127	0.38	0.40±0.05	1.18±0.15	239	610
26	7/0.16	0.48	0.40±0.05	1.28±0.15	150	610
24	11/0.16	0.61	0.40±0.05	1.41±0.15	94.2	610
22	17/0.16	0.76	0.40±0.05	1.56±0.15	59.4	610
20	26/0.16	0.94	0.40±0.05	1.74±0.15	37.6	610
18	16/0.254	1.18	0.40±0.05	1.98±0.15	23.5	305
16	26/0.254	1.50	0.40±0.05	2.30±0.15	14.7	305



E227566 AWM STYLE 3385 XX AWG 105C 300V VW-1-- AWM IA/B 105C 300V FT1 -LF- WOER  
 E227566 AWM STYLE 3385 XX AWG 105C 300V VW-1-- AWM IA/B 105C 300V FT1 -LF- -HF- WOER

## Colors:

Black, brown, red,orange, yellow, green, blue, violet , grey , white.

## Similar products

E227566 AWM STYLE 3302 XX AWG 105C 30V VW-1-- AWM IA/B 105C 30V FT1 -LF- -HF - WOER  
 E227566 AWM STYLE 10368 XX AWG 105C 300V VW-1-- AWM IA/105C 300V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3386 XX AWG 105C 600V VW-1-- AWM IA/B 105C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3569 XX AWG 105C 600V VW-1-- AWM IA/B 105C 600V FT1 -LF- -HF- WOER  
 E227566 AWM STYLE 3275 XX AWG 105C 1000V VW-1-- AWM IA/B 105C 1000V FT1 -LF- WOER



## **Power Cable Accessories**

# WRSJG

## Heat Shrinkable Anti-tracking Insulation tube

Heat Shrink Non Tracking Tubes are used In Medium Voltage Cable Joints and terminations upto 36 KV. The tubes are produced from high quality non tracking cross linked polyolefin material that offers exceptional insulation and long term service reliability.

### Features

- Material: polyolefin, inner coated with adhesive on the end.
- Operating temperature: -55°C ~100°C
- Shrink temperature: Start at 100°C, and shrink totally at 130°C
- Standard Color: red



### Dimensions

SIZE	EXPANDED	RECOVERED		Standard package mm/pc
	INTERNAL DIAMETER (MIN) D mm	INTERNAL DIAMETER (MAX) D mm	WALL THICKNESS mm	
WRSJG-30/12	30	12	2.1±0.2	600-1200
WRSJG-35/14	35	14	2.2±0.2	600-1200
WRSJG-40/17	40	17	2.2±0.2	600-1200
WRSJG-50/22	50	22	2.4±0.2	600-1200
WRSJG-55/24	55	24	3.2±0.2	600-1200
WRSJG-60/26	60	26	3.2±0.2	600-1200
WRSJG-70/29	70	29	3.2±0.2	600-1200
WRSJG-75/35	75	35	3.2±0.2	600-1200
WRSJG-90/38	90	38	3.6±0.2	600-1200
WRSJG-100/42	100	42	3.6±0.2	600-1200

### Technical Data

Property	Test Method	Standard Value
Operating 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-2671/120°C, 168hrs	≥11MPa
Elongation at break after aging	ASTM-D-2671/120°C, 168hrs	≥240%
Dielectric strength	IEC 243	≥20kV/mm
Tracking resistant	ASTM-D-2303	3.75Kv, 1hr, pass
Volume resistance	ASTM-D-2303	≥1×10 <sup>14</sup> Ω·cm
Dielectric constant	IEC 250	3.0
Longitudinal shrinkage	-	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water absorption	ISO 62	≤0.1%
Flammability (Oxygen index)	IEC 93	≥28
Copper corrosion	ASTM-D-2671	120°C, 168hr, no corrosion
Cold bend	ASTM-D-2671	-40°C, 4hrs, no cracking

# WMPG Heat Shrinkable Busbar Insulating Tube

Voltage class: 1KV, 10KV, 35KV

Available colors: Red, Yellow, Green, Black

## Features

- Avoid short circuit fault caused by small animals such as mice, snakes and so on
- Prevent busbar from chemical corrosion effected by strong acid, alkali, salt etc
- Avoid accidental injury to overhaul persons when they enter electriferous clearance by mistakes
- It provides excellent insulation performance to supply required flashover protection for the busbar system



## Dimensions

Part No.	Busbar Width (mm)	As supplied (mm)		After Recovery (mm)		Standard Package (m/roll)
		Inner Diameter	Wall thickness	Max. Inner Diameter	Wall thickness	
1KV WMPG 30	30	31.5±1.0	0.45±0.15	15	0.95±0.15	50
1KV WMPG 35	40	37.0±1.5	0.50±0.15	16	1.0±0.15	50
1KV WMPG 40	40	40.5±1.5	0.50±0.15	20	1.0±0.15	50
1KV WMPG 50	50	50.5±2.0	0.50±0.15	25	1.0±0.15	25
1KV WMPG 60	60	60±3.0	0.80±0.2	30	1.3±0.2	25
1KV WMPG 70	80	70±3.0	0.80±0.2	32	1.5±0.2	25
1KV WMPG 80	80/100	80±3.0	0.80±0.3	40	1.5±0.3	25
1KV WMPG 90	100	90±4.0	0.80±0.3	43	1.5±0.3	25
1KV WMPG 100	100/120	100±4.0	0.80±0.3	50	1.5±0.3	25
1KV WMPG 120	150	120±4.0	0.80±0.3	60	1.5±0.3	25
1KV WMPG 150	180	150±4.0	0.80±0.3	75	1.5±0.3	25

Part No.	Busbar Width (mm)	As supplied (mm)		After Recovery (mm)	
		Inner Diameter	Wall thickness	Max. Inner Diameter	Wall thickness
10KV WMPG 20	20	20±0.8	1.0±0.2	9	2.5±0.2
10KV WMPG 30	30	30±0.8	1.0±0.2	13	2.5±0.2
10KV WMPG 40	40	40±1.0	1.2±0.2	15	2.5±0.2
10KV WMPG 50	50	50±2.0	1.2±0.2	20	2.5±0.2
10KV WMPG 60/65	60	65±3.0	1.2±0.2	24	2.8±0.2
10KV WMPG 80	80/100	80±3.0	1.2±0.3	32	2.8±0.3
10KV WMPG 100	100/120	100±4.0	1.2±0.3	40	2.8±0.3
10KV WMPG 120	150	120±4.0	1.2±0.3	48	2.8±0.3
10KV WMPG 150	200	150±4.0	1.2±0.3	60	2.8±0.3
10KV WMPG 180	MAX.	180±5.0	1.2±0.3	70	2.8±0.3
10KV WMPG 210	MAX.	210±5.0	1.2±0.3	80	2.8±0.3
10KV WMPG 240	MAX.	240±5.0	1.2±0.3	90	3.8±0.2
10KV WMPG 300	MAX.	300±5.0	1.2±0.3	100	3.8±0.2

Part No.	Busbar Width (mm)	As supplied (mm)		After Recovery (mm)	
		Inner Diameter	Wall thickness	Max. Inner Diameter	Wall thickness
35KV WMPG 30	30	30±1.0	2.0±0.3	13	134.0±0.3
35KV WMPG 40	40	40±1.0	2.0±0.3	15	4.0±0.3
35KV WMPG 50	50	50±2.0	2.2±0.3	20	4.5±0.3
35KV WMPG 60/65	60	65±2.0	2.2±0.3	24	4.5±0.3
35KV WMPG 80	80/100	80±3.0	2.2±0.3	32	4.5±0.3
35KV WMPG 100	100/120	100±4.0	2.5±0.3	40	4.5±0.3
35KV WMPG 120	150	120±4.0	2.5±0.3	48	5.0±0.3
35KV WMPG 150	200	150±4.0	2.5±0.3	60	5.0±0.3
35KV WMPG 180	MAX.	180±5.0	2.5±0.3	70	5.5±0.3
35KV WMPG 210	MAX.	210±5.0	2.5±0.3	80	5.5±0.3



# WRSJD

## Cross-linked heat Shrinkable Insulation Tape

Cross-linked heat shrinkable insulation tape adopts cross-linked polyolefin and environmental friendly heat melted adhesive that can be used for insulation, waterproof and anti-corrosion purposes.

### Features

- Partial repair of the cable protective layers suffered by mechanical and heat damage and corrosions and breakages caused by organic solvent.
- Waterproof treatment at the ends of protective sleeves of heat shrinkable power cable joints.
- Anti-corrosion and seal of pipes.
- Insulation of bus bars in switchgear board and power stations.
- Withstand temperature: -55 degrees -- 105 degrees
- Shrink temperature: 100 degrees.
- Self shrink ratio: > 30%
- Colors: black, red, yellow and green.



### Dimensions

SIZE	STANDARD WIDTH(MM)	STANDARD THICKNESS(MM)	STANDARD PACKAGE(M)
WRSJD-0825	25	0.8±0.1	5 or 10
WRSJD-0850	50	0.8±0.1	5 or 10
WRSJD-0875	75	0.8±0.1	5 or 10
WRSJD-08100	100	0.8±0.1	5 or 10
WRSJD-1025	25	1.0±0.1	5 or 10
WRSJD-1050	50	1.0±0.1	5 or 10
WRSJD-1075	75	1.0±0.1	5 or 10
WRSJD-10100	100	1.0±0.1	5 or 10

### Technical Data

Property	Test Method	Standard Value
Tensile strength, Mpa	ASTM D 638	≥12
Elongation, %	ASTM D 638	≥400
Tensile strength after aging, Mpa	ASTM D 2671/120℃, 168h	≥ 10
Elongation after aging, %	ASTM D 2671/120℃, 168h	≥ 320
Volume resistance, Ω.cm	IEC 93	≥1×10 <sup>14</sup>
Dielectric strength, kV/mm	IEC 243	≥ 20

# WDWT

## Semi-conductive/Insulation Double layer shrinkable tubing

It is made by heat shrinkable insulating material and heat shrinkable semi-conductive material, via special processing, with good insulation in its inner layer and good semi-conduction in its outer layer, and provides reliable shield protection.

It can be applied to power cable straight joints for insulating and outer-shielding layer up to 35KV, and other places where require insulation and shield.

### Features

- Material: cross-linked polymer;
- Operating temperature: -40 100 °C;
- Shrink temperature: start at 100 °C, and full recovery at 130 °C;
- Color: black;



### Dimensions

Size(mm)	Inner Diameter as supplied(mm)	After recovery(mm)		Length(m)
		Inner Diameter	Total thickness	
30/11	≥30	≤11	5.5±0.3	300-1200mm, can be cut according to specific lengths
35/13	≥35	≤13	5.5±0.3	
45/16	≥45	≤16	5.5±0.3	
55/20	≥55	≤20	5.5±0.3	
65/27	≥65	≤27	5.5±0.3	
88/30	≥88	≤30	7.5±0.3	
100/35	≥100	≤35	7.0±0.3	
120/45	≥120	≤45	7.0±0.3	

### Technical Data

#### Inner Insulation layer

Property	Test Method	Standard Value
Hardness( Shore A)	ISO 7619	≤90
Tensile strength, Mpa	ASTM D 2671	≥12
Elongation, %	ASTM D 2671	≥300
Volume resistance, Ω.cm	IEC 93	≥10 <sup>14</sup>
Water Absorption(%)	ISO 62	≤0.5

#### Outer Semi-Conductive Layer

Property	Test Method	Standard Value
Hardness( Shore A)	ISO 7619	≤90
Tensile strength, Mpa	ASTM D 2671	≥12
Elongation, %	ASTM D 2671	≥300
Volume resistance, Ω.cm	IEC 93	1×10 <sup>2</sup> ~ 1×10 <sup>3</sup> Ω□cm

# WRSHG

## Heat Shrinkable Protective Tube

Excellent insulation and rapid shrink. Mainly used for the outer protection of cable straight joints.

### Features

- Material: cross-linked polyolefin
- Operating temperature: -45°C ~105°C
- Shrink temperature: Start at 100°C, and shrink totally at 130°C
- Color: black

### Dimensions

Part No.	Inner Diameter		Recovered wall thickness Nom.(mm)	Standard length(mm)
	As supplied Min(mm)	After Recovery (mm)		
WRSHG-10/5	10	5	1.3±0.2	275-1000
WRSHG-15/7	15	7	1.3±0.2	275-1000
WRSHG-20/8	20	8	1.8±0.2	275-1000
WRSHG-30/11	30	11	1.8±0.2	275-1000
WRSHG-35/13	35	13	2.0±0.2	275-1000
WRSHG-40/17	40	17	2.2±0.2	275-1000
WRSHG-50/22	50	22	2.5±0.2	800-1200
WRSHG-60/25	60	25	2.8±0.2	800-1200
WRSHG-80/30	80	30	2.9±0.2	850-1200
WRSHG-100/39	100	39	3.0±0.2	850-1200
WRSHG-120/45	120	45	3.0±0.2	850-1200
WRSHG-140/56	140	56	3.5±0.2	850-1200
WRSHG-160/56	160	58	3.5±0.2	850-1200
WRSHG-180/60	180	60	4.5±0.2	850-1200
WRSHG-210/67	210	67	4.5±0.2	850-1200
WRSHG-240/85	240	85	4.5±0.2	850-1200

### Technical Data

Property	Test Method	Standard Value
Tensile strength	ASTM-D-638	≥13MPa
Elongation at break	ASTM -D- 638	≥300%
Tensile strength after aging	ASTM-D-2671/120°C, 168hrs	≥11MPa
Elongation at break after aging	ASTM-D-2671/120°C, 168hrs	≥240%
Volume resistance	ASTM-D-2303	≥1×10 <sup>14</sup> Ω·cm
Dielectric strength	IEC 243	≥20kV/mm
Longitudinal shrinkage	-	≤ 10%
Eccentricity	ASTM-D-2671	≤30%
Water absorption	ISO 62	≤0.1%

# WRSYL

## Heat Shrinkable Stress Control Tube

provide effective stress control for termination kits and straight joints for XLPE Cable and PILC Cable up to 36kV.

### Features

- Material: cross-linked polymer
- Operating temperature: -40°C ~100°C
- Shrink temperature: Start at 100°C, and shrink totally at 130°C
- Standard Color: black



### Dimensions

Part No.	Inner Diameter		Recovered wall thickness Nom.(mm)	Standard length(mm)
	As supplied Min(mm)	After Recovery (mm)		
WRSYL-30/12	30	12	2.1±0.1	100-1200
WRSYL-35/15	35	15	2.1±0.1	100-1200
WRSYL-40/18	40	18	2.1±0.1	100-1200
WRSYL-45/20	45	20	2.1±0.1	100-1200
WRSYL-55/25	55	25	3.2±0.1	100-1200
WRSYL-70/28	70	28	3.2±0.1	100-1200
WRSYL-85/39	85	39	3.5±0.1	100-1200

### Technical Data

Property	Test Method	Standard Value
Operating temperature	IEC 216	-40°C to +100°C
Tensile strength	ASTM-D-638	≥12MPa
Elongation at break	ASTM-D-638	≥300%
Tensile strength after aging	ASTM-D-2671/120°C, 168hrs	≥10MPa
Elongation at break after aging	ASTM-D-2671/120°C, 168hrs	≥210%
Volume resistance	IEC 93	1×10 <sup>8-10</sup> Ω·cm
Dielectric constant	IEC 250	≥20
Longitudinal shrinkage		≤10%
Eccentricity	ASTM-D-2671	≤30%
Water absorption	ISO 62	≤0.1%

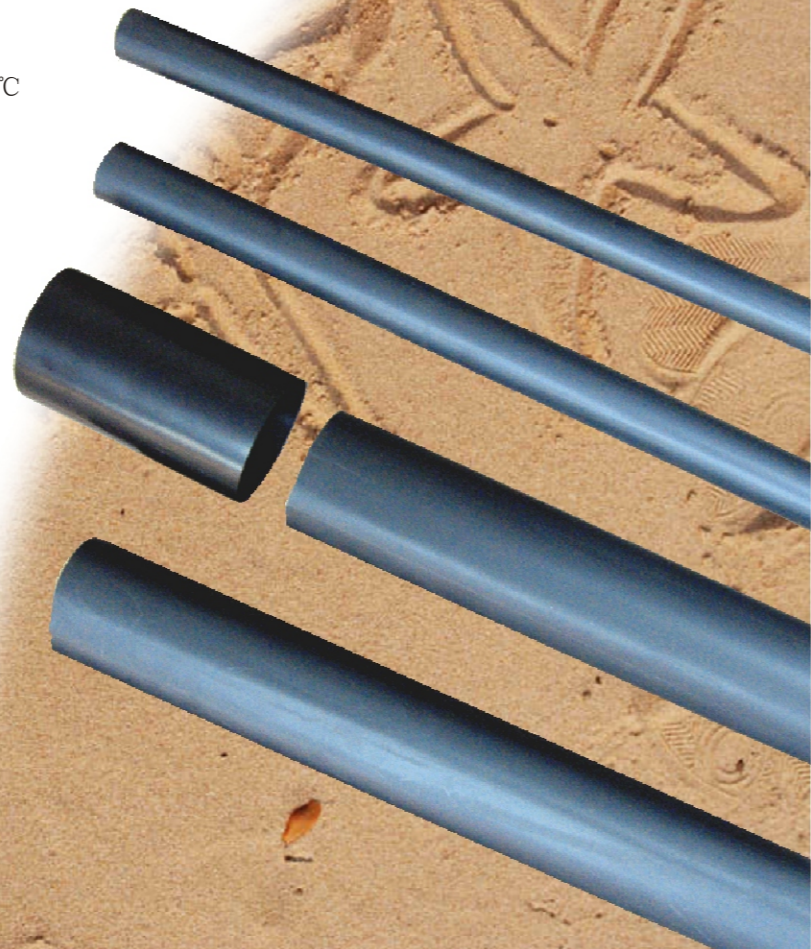
# WRSBG

## Heat Shrinkable Semi-conductive Tube

Heat Shrink Semi-conductive Tubes are use in Cable Joints upto 36 KV to provide insulation screen on the build-up insulation over connectors. The Semi Conductive Tubing is made from thermally stabilised cross linked Semi-conductive Polymeric material.

### Features

- Material: cross-linked polymer
- Operating temperature: -40°C ~100°C
- Shrink temperature: Start at 110°C, and shrink totally at 130°C
- Standard Color: black



### Dimensions

Part No.	Inner Diameter		Recovered wall thickness Nom.(mm)	Standard length(mm)
	As supplied Min(mm)	After Recovery (mm)		
WRSBG-45/18	45	18	2.4±0.1	400-1200
WRSBG-50/20	50	20	2.4±0.1	400-1200
WRSBG-55/23	55	23	2.4±0.1	400-1200
WRSBG-65/26	65	26	2.4±0.1	400-1200
WRSBG-100/30	100	30	2.9±0.1	400-1200
WRSBG-120/35	120	35	2.9±0.1	400-1200

### Technical Data

Property	Test Method	Standard Value
Operating temperature	IEC 216	-40°C to +100°C
Tensile strength	ASTM-D-638	≥12MPa
Elongation at break	ASTM-D-638	≥300%
Tensile strength after aging	ASTM-D-2671/120°C, 168hrs	≥9.6MPa
Elongation at break after aging	ASTM-D-2671/120°C, 168hrs	≥240%
Volume resistance	ASTM-D-2303	$1 \times 10^2 \sim 1 \times 10^3 \Omega \cdot \text{cm}$
Longitudinal shrinkage	-	≤15%
Eccentricity	ASTM-D-2671	≤30%
Water absorption	ISO 62	≤0.1%

# WRSZT

Crosslinked Polyolefin Cable Breakout Boots

Material: polyolefin

Shrink temperature: Start at 100°C, and shrink totally at 130°C

Voltage Rating: up to 35KV

Color: black ,red,milk-white(only for oil-resistant terminations)

## Features

- Shrink ratio accommodates a wide range of cables
- Boots for 2, 3, 4 and 5 way cable
- Strain relief and mechanical protection
- Thermoplastic adhesive liner
- Continuous operating temperature:
- Shrink temperature: 135°C



## Dimensions

Order ref. Number	Breakout main diameter		Finger diameter		Full length (mm)	Finger length (mm)	
	As Supplied (mm)	After Recovery (mm)	As Supplied (mm)	After Recovery (mm)			
2 cores breakout	WISZT2-72/23	≥72	≤23	≥40	≤10	135±5	55±5
	WISZT2-25/11	≥25	≤11	≥10	≤5	145±5	60±5
	WISZT2-40/15	≥40	≤15	≥20	≤9	145±5	65±5
	WISZT2-50/17	≥50	≤17	≥25	≤11	145±5	60±5
	WISZT2-65/23	≥65	≤23	≥35	≤10	145±5	60±5
3 cores breakout	WISZT3-27/17	≥27	≤17	≥12	≤5	130±5	50±5
	WISZT3-50/22	≥50	≤22	≥19	≤7	165±5	60±5
	WISZT3-60/28	≥60	≤28	≥24	≤8	170±5	65±5
	WISZT3-70/36	≥70	≤36	≥29	≤13	210±5	80±5
	WISZT3-90/45	≥90	≤45	≥40	≤15	220±5	90±5
	WISZT3-105/53	≥105	≤53	≥44	≤18	225±5	90±5
	WISZT3-130/63	≥130	≤63	≥58	≤24	230±5	85±5
4 cores breakout	WISZT3-140/63	≥140	≤63	≥65	≤24	230±5	85±5
	WISZT4-40/18	≥40	≤18	≥10	≤5	130±5	55±5
	WISZT4-50/24	≥50	≤24	≥15	≤7	150±5	55±5
	WISZT4-70/32	≥70	≤32	≥24	≤9	175±5	75±5
	WISZT4-80/44	≥80	≤44	≥30	≤12	185±5	75±5
5 cores breakout	WISZT4-95/44	≥95	≤44	≥35	≤12	185±5	80±5
	WISZT4-110/44	≥110	≤44	≥40	≤12	185±5	80±5
	WISZT5-40/21	≥40	≤21	≥10	≤5	150±5	55±5
	WISZT5-55/29	≥55	≤29	≥15	≤7	170±5	65±5
	WISZT5-70/38	≥70	≤38	≥24	≤9	175±5	65±5
	WISZT5-90/49	≥90	≤48	≥30	≤12	190±5	80±5
	WISZT5-120/45	≥120	≤45	≥40	≤12	195±5	80±5

Other sizes are available upon request.

## Technical Data

Property	Test Method	Standard Value	
		Insullated breakout	Oil resistant breakout
Operating temperature	ICE 216	-55°C~100°C	-20°C~100°C
Tensile strength	ASTM D 2671	≥13MPa	≥12MPa
Elongation	ASTM D 2671	≥300%	≥300%
Tensile strength after thermal aging	ASTM D 2671/120°C, 168hrs	≥11MPa	≥10MPa
Elongation after thermal aging	ISO 62	≥210%	≥210%
Water absorption	ISO 62	≤0.1%	≤0.1%
Volume resistivity	ASTM D2303	≥1×10 <sup>14</sup> Ω □cm	≥1×10 <sup>14</sup> Ω □cm
Oil resistance (Tensile strength after dipping)	ASTM D2671/70 # Cable oil/168hrs	-----	≥10MPa
Oil resistance (Elongation at break after dipping)	ASTM D2671/70 # Cable oil/168hrs	-----	≥210%
Dielectric strength	ICE243	≥20kv/mm	≥20kv/mm

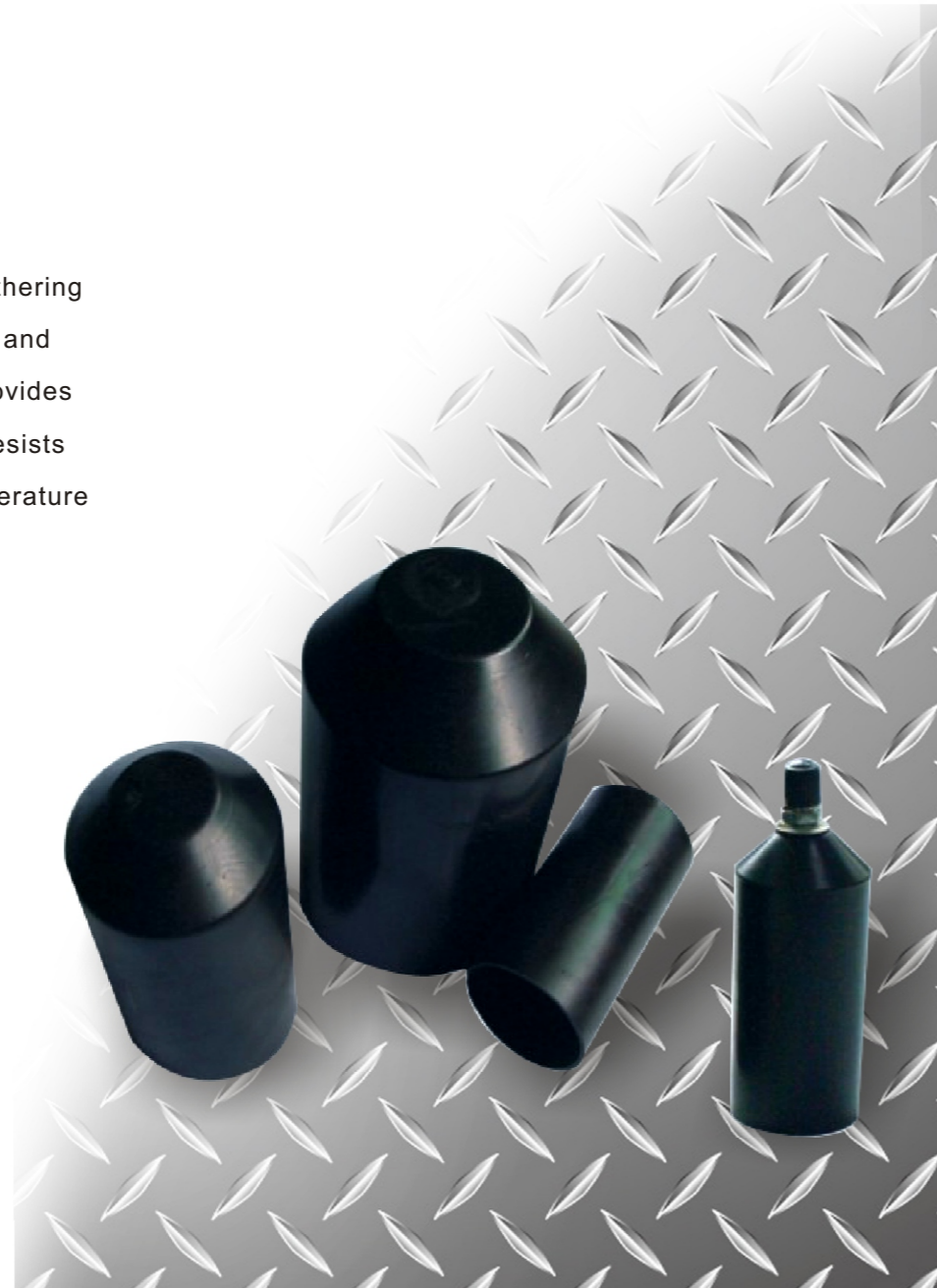
# WRSFM

## Crosslinked Polyolefin End Cap

Heat shrink end caps are a simple yet effective method for sealing cable ends, pipe, conduit or other similar objects

### Features

- 2:1 shrink ratio
- Superior resistance to weathering
- Resistant to common fluids and
- Standard adhesive liner provides  
Coated hot melt adhesive resists  
Continuous operating temperature
- Shrink temperature: 120°C



### Dimensions

Part No.	Inner diameter		Full length (mm)	Wall thickness	
	As Supplied (mm)	After Recovery (mm)		As Supplied (mm)	After Recovery (mm)
WRSFM-11/5	≥11	≤5.5	≥22	0.7±0.1	≥1.1
WRSFM-16/7	≥16	≤7.5	≥75	1.3±0.1	≥2.2
WRSFM-25/10	≥25	≤10.5	≥80	1.5±0.1	≥2.3
WRSFM-32/16	≥32	≤16.5	≥90	1.5±0.1	≥2.5
WRSFM-50/26	≥50	≤26	≥115	2.0±0.1	≥3.4
WRSFM-70/30	≥70	≤30	≥125	1.8±0.1	≥2.5
WRSFM-100/40	≥100	≤40	≥140	1.8±0.1	≥3.5
WRSFM-120/57	≥120	≤57	≥155	1.8±0.1	≥3.5
WRSFM-140/60	≥140	≤60	≥180	2.0±0.1	≥4.0

Other sizes are available upon request.

### Technical Data

Property	Test Method	Standard Value
Tensile strength	ASTM D 2671	≥13MPa
Elongation	ASTM D 2671	≥300%
Tensile strength after thermal aging	ASTM D 2671 (120°C/168hrs)	≥11MPa
Elongation after thermal aging	ASTM D 2671 (120°C/168hrs)	≥210%
Longitudinal shrinkage	UL 224	≤10%
Eccentricity	ASTM D2671	<30%
Water absorption	ISO 62	≤0.1%
Volume resistivity	IEC 93	≥1×10 <sup>14</sup> Ω □cm
Dielectric strength	IEC 243	≥20kv/mm
Resistance to stress cracking	ASTM D 1693 (50°C)	No cracking
Resistance to fungus and decay	ISO 846	Pass

# WRSXP

## Heat Shrinkable Repair Sleeve

A superior wraparound insulation product that easily installs in repair and splice applications providing excellent insulation and protection for cable jackets.

### Features

- 3:1 shrink ratio
- High shrink ratio covers even irregular shapes
- Better split resistance than competitive products
- Thermoplastic adhesive liner provides complete environmental protection and insulation
- Continuous operating temperature: -45°C to 105°C
- Shrink temperature: start at 100°C, full recovery at 130°C.



### Dimensions

Part No.	Inner Diameter		recovered wall thickness Nom.(mm)	DELIVERY standard length(mm)
	As supplied Min.(mm)	After recovery Max.(mm)		
WRSXP-30/12	30	13	1.6±0.2	500-1000
WRSXP-50/18	50	18	1.5±0.2	500-1000
WRSXP-60/22	60	22	1.5±0.2	500-1000
WRSXP-85/30	85	30	1.5±0.2	500-1000
WRSXP-100/35	100	35	1.5±0.2	500-1000
WRSXP-120/40	120	40	1.5±0.2	500-1000
WRSXP-150/50	150	50	1.5±0.2	500-1000

### Technical Data

Property	Test Method	Typical Performance
Tensile strength	ASTM-D-638	≥13MPa
Elongation at break	ASTM -D- 638	≥300%
Tensile strength after aging	ASTM-D-2671/120°C, 168hrs	≥11MPa
Elongation at break after aging	ASTM-D-2671/120°C, 168hrs	≥210%
Volume resistance	ASTM-D-2303	≥1×10 <sup>14</sup> Ω □cm
Dielectric strength	IEC 243	≥20kV/mm
Longitudinal shrinkage	-	≤ 10%
Eccentricity	ASTM-D-2671	≤30%
Water absorption	ISO 62	≤0.1%



# AC

## Heat shrinkable anode cap

Anode Cap seals and protects the critical connection between lead wire and anode.

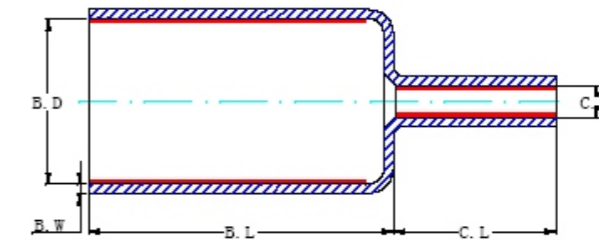
### Features

- The tight fitting, heat-shrinkable anode cap provides stress relief, moisture proofs and electrically insulated the end of the anode at the lead time exit point, it is the ideal solution to the problem of premature system failure due to loss of the wire to anode termination.
- Operating temperature: -55°C ~ 100°C
- Shrink temperature: Start at 100°C, and shrink totally at 130°C



### Dimensions

Part No.	B.D		C.D		B.L	C.L	B.W
	Supplied	Recovered	Supplied	Recovered	Supplied	Supplied	Supplied
AC-2	≥58	≤48	≥12.5	≤6.5	76±2	78±2	2.4±0.1
AC-3B	≥83	≤75	≥12.5	≤6.5	102±2	78±2	2.4±0.1
AC-4	≥108	≤100	≥12.5	≤6.5	102±2	78±2	2.4±0.1
AC-4B	≥120	≤87	≥13.5	≤6.5	102±2	78±2	2.4±0.1
Φ86	≥86	≤40	≥16.8	≤5.6	150±2	78±2	3.2±0.1
Φ112	≥112	≤55	≥16.8	≤5.6	150±2	78±2	3.2±0.1



### Technical Data

Property	Test Method	Standard Value
Tensile strength	ASTM-D-2671	≥13MPa
Elongation at break	ASTM-D-2671	≥300%
Tensile strength after thermal aging	ASTM-D-2671 (120°C/168hrs)	≥11MPa
Elongation at break after thermal aging	ASTM-D-2671 (120°C/168hrs)	≥210%
Longitudinal shrinkage	UL 224	≤10%
Eccentricity	ASTM-D-2671	≤30%
Water absorption	ISO 62	≤0.1%
Volume resistance	IEC 93	≥1×10 <sup>14</sup> Ω . cm
Dielectric strength	IEC243	≥20kV/mm
Resistance to stress cracking	ASTM-D-1693 (50°C)	No cracking
Resistance to fungus and decay	ISO 846	Pass



**WRSKT 2-core Clip-on breakout**

Main Material: polyolefin, stainless steel  
 Application: mostly used to provide sealing and protection for bifurcated cable, especially for the branch cable lapping on the main cable.



**WRSJB Heat Shrinkable Joint Box**

Material: Polyolefin  
 Voltage class: 1kv, 10kv, 35kv  
 Available Color: red, yellow, green, black



**Silicone Rubber Protective Cover**

Material: Silicone Rubber  
 Application: mainly applied to provide protection for various electrical connecting.



**WRSGY Oil-resistant Tubing**



**Y-type Heat Shrink Tubing**

# Woer- Mission Statement

To be the leading global manufacturer and marketer of heat shrink based systems and related products to the electrical, mechanical and electronic insulation markets through excellence in customer service and by identifying and solving application problems with differentiated product solutions.

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