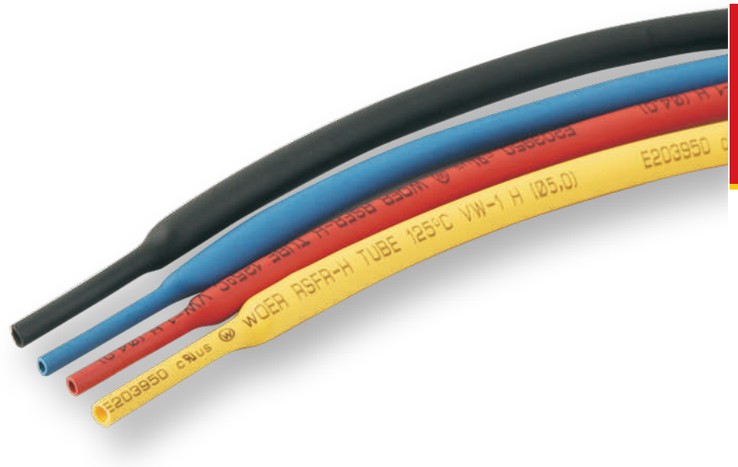
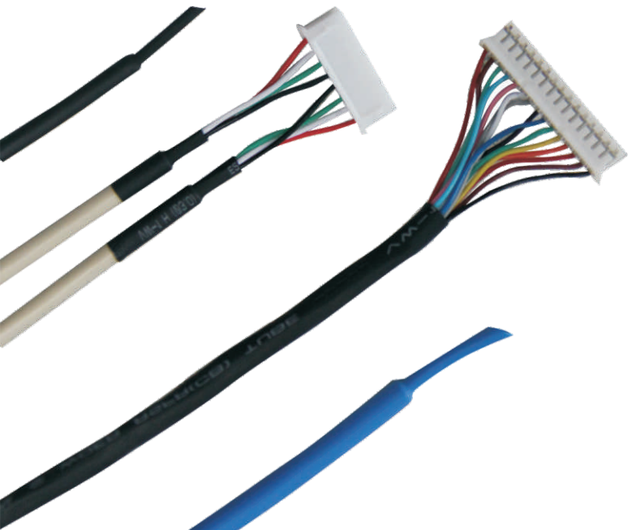
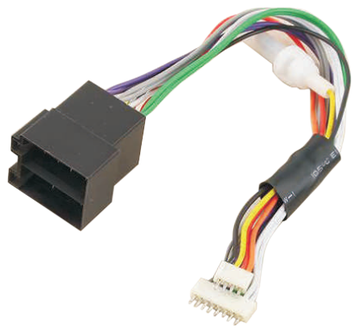


Single Wall Products

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





CONTENTS

RSFR-H(H)

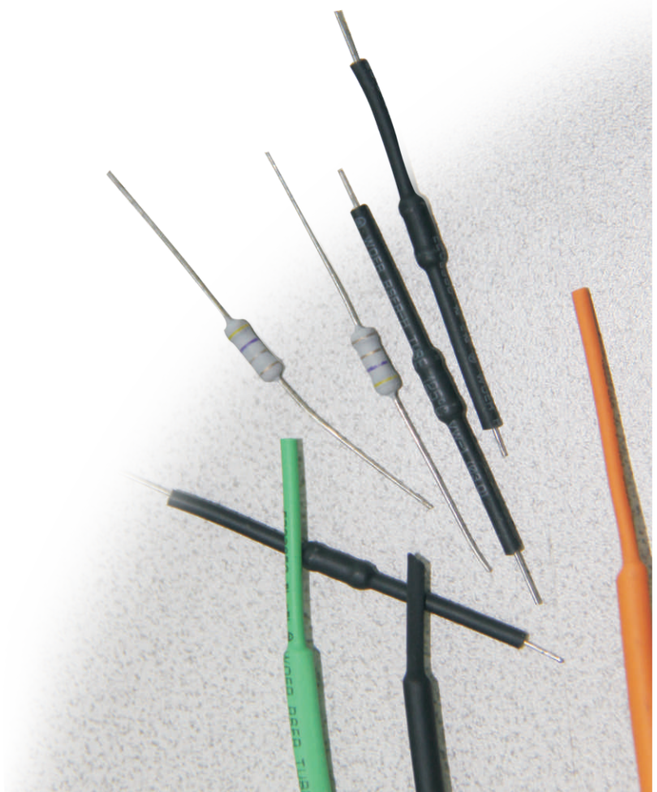
Ultra thin wall halogen free,flexible

heat shrink tubing.

Features

- Ultra thin wall
- Flexible
- Halogen free
- Flame retardant
- low smoke generation if burning
- Continuous operating

  Temperature:-55℃ to 125℃
- Fully shrink temperature:120℃
- 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

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	⩾10.4
Ultimate elongation(%)	ASTM D 2671	⩾200
Tensile strength after heat aged (Mpa)	158℃X168h	⩾7.3
Ultimate elongation after heat aged (%)	158℃X168h	⩾100
Longitudinal change(%)	ASTM D 2671	–5%~+5%
Flammability	ASTM D 2671 C method	VW–1
Dielectric strength (kv/mm)	ASTM D 149	⩾15
Volume resistivity (Ω·cm)	ASTM D 876	$\geqslant 10^{14}$

RSFR-HCB(H)

Ultra thin wall halogen free,flexible

heat shrink tubing.

Features

- Ultra thin wall
- Flexible
- Halogen free
- Flame retardant
- low smoke generation if burning
- Continuous operating

  Temperature:-45℃ to 125℃
- Fully shrink temperature:110℃
- RoHS and Sony compliant

Dimensions

Size		As Supplied	After Recovery		Standard Package
Inch	mm	Internal Diameter mm	Internal Diameter mm	Wall Thickness 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
5/8	15.0	15.5 ± 0.4	7.5	0.40	100
	16.0	16.5 ± 0.4	8.0	0.40	100
	17.0	17.5 ± 0.4	8.5	0.40	100
3/4	18.0	18.5 ± 0.4	9.0	0.42	100
	20.0	20.5 ± 0.5	10.0	0.45	100
	22.0	22.5 ± 0.5	11.0	0.45	100
1	25.0	25.5 ± 0.5	12.5	0.45	50

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	⩾10.4
Ultimate elongation(%)	ASTM D 2671	⩾200
Tensile strength after heat aged (Mpa)	158℃X168h	⩾7.3
Ultimate elongation after heat aged (%)	158℃X168h	⩾100
Longitudinal change(%)	ASTM D 2671	−5%~+5%
Flammability	ASTM D 2671 C method	VW−1
Dielectric strength (kv/mm)	ASTM D 149	⩾15
Volume resistivity (Ω·cm)	ASTM D 876	$\geqslant 10^{14}$

RSFR-H

Universal heat shrink tubing with excellent physical and mechanical properties

Features

- Flexible
- Flame retardant
- Continuous operating temperature:-55℃~125℃
- Fully shrink temperature:≥120℃
- 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	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
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
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	1.56	25
6	150.0	≥150	76	1.56	25
7	180.0	≥180	91	1.56	25

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥10.4
Ultimate elongation(%)	ASTM D 2671	≥200
Tensile strength after heat aged(Mpa)	158℃X168h	≥7.3
Ultimate elongation after heat aged (%)	158℃X168h	≥100
Longitudinal change(%)	ASTM D 2671	-5%~+5%
Flammability	ASTM D 2671 C method	VW-1
Voltage withstand	UL 224, 2500V, 60s	No breakdown
Dielectric strength (kv/mm)	ASTM D 149	≥15
Volume resistivity (Ω·cm)	ASTM D 876	$\geq 10^{14}$

RSFR-H(3X)

Universal heat shrink tubing with excellent physical and mechanical properties

Features

- Flexible
- Flame retardant
- Ultra thin wall
- Continuous operating temperature:-55℃~125℃
- Fully shrink temperature:≥120℃
- 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
1/16	1.5	1.6±0.1	≤0.50	0.45±0.10	200
1/8	3.0	3.2±0.1	≤1.00	0.55±0.10	200
3/16	4.5	4.7±0.1	≤1.50	0.60±0.10	200
1/4	6.0	6.2±0.1	≤2.00	0.65±0.10	100
3/8	9.0	9.3±0.2	≤3.00	0.75±0.15	100
1/2	12.0	12.3±0.2	≤4.00	0.75±0.15	100
5/8	15.0	15.3±0.2	≤5.00	0.80±0.15	100
3/4	18.0	18.3±0.2	≤6.00	0.85±0.15	100
1	24.0	24.4±0.3	≤8.00	1.00±0.20	50
1-1/4	30.0	30.4±0.3	≤10.0	1.15±0.20	50
1-1/2	39.0	39.6±0.5	≤13.0	1.50±0.20	50
2	50.0	50.6±0.5	≤16.0	2.50±0.20	25
	60.0	61.5±1.0	≤20.0	2.60±0.20	25
	70.0	61.5±1.0	≤23.0	2.60±0.20	25
3	80.0	71.5±1.0	≤26.0	2.60±0.20	25
	90.0	81.5±1.0	≤30.0	2.60±0.20	25
4	100.0	91.5±1.0	≤33.0	2.60±0.20	25

Technical Data

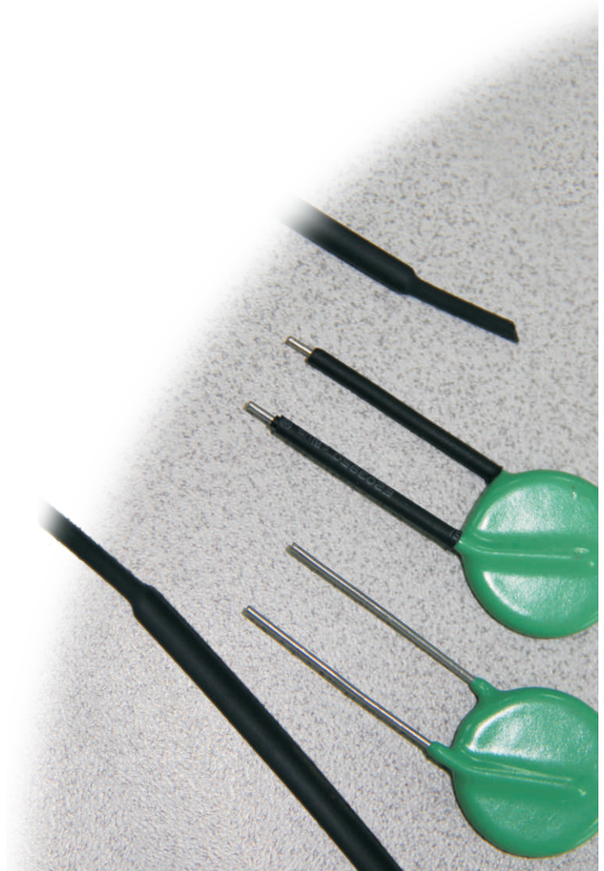
Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥10.4
Ultimate elongation(%)	ASTM D 2671	≥200
Tensile strength after heat aged(Mpa)	158℃X168h	≥7.3
Ultimate elongation after heat aged (%)	158℃X168h	≥100
Longitudinal change(%)	ASTM D 2671	-5%~+5%
Flammability	ASTM D 2671 C method	VW-1
Voltage withstand	UL 224, 2500V, 60s	No breakdown
Dielectric strength (kv/mm)	ASTM D 149	≥15
Volume resistivity (Ω·cm)	ASTM D 876	$\geq 10^{14}$

RSFR-HCB

Ultra thin wall, very flexible Heat shrink tubing

Features

- Ultra thin wall
- Very flexible
- Flame retardant
- Continuous operating
  Temperature:-45℃ to 125℃
- Fully shrink temperature:≥110℃
- RoHS

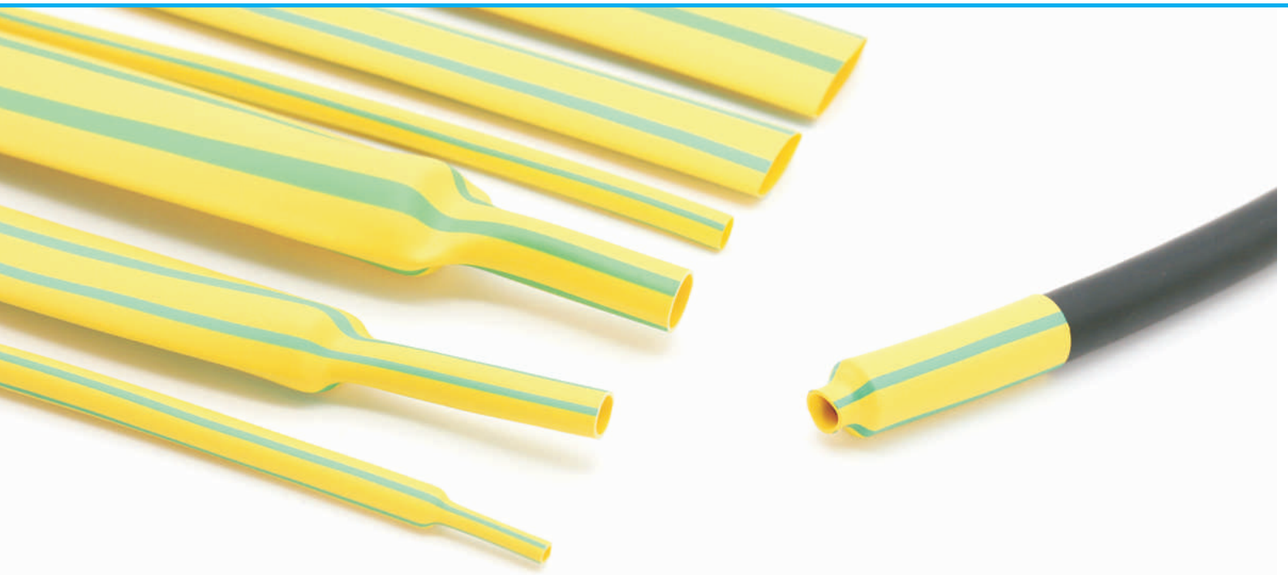


Dimensions

Size		As Supplied	After Recovery		Standard Package
Inch	mm	Internal Diameter mm	Internal Diameter mm	Wall Thickness 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
5/8	15.0	15.5 ± 0.4	7.5	0.40	100
	16.0	16.5 ± 0.4	8.0	0.40	100
	17.0	17.5 ± 0.4	8.5	0.40	100
3/4	18.0	18.5 ± 0.4	9.0	0.42	100
	20.0	20.5 ± 0.5	10.0	0.45	100
	22.0	22.5 ± 0.5	11.0	0.45	100
1	25.0	25.5 ± 0.5	12.5	0.45	50

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥10.4
Ultimate elongation(%)	ASTM D 2671	≥200
Tensile strength after heat aged (Mpa)	158℃X168h	≥7.3
Ultimate elongation after heat aged (%)	158℃X168h	≥100
Longitudinal change(%)	ASTM D 2671	−5%~+5%
Flammability	ASTM D 2671 C method	VW−1
Dielectric strength (kv/mm)	ASTM D 149	≥15
Volume resistivity (Ω·cm)	ASTM D 876	$\geq 10^{14}$



RSFR-(2X,3X) YG

Yellow/Green Stripped Thin Wall Cross-linked Polyolefin Heat Shrink Tubing

Yellow/Green stripped,flexible,flame-retardant.

RoHS

2:1&3:1

Features

- Stripped color combination designates international electrical grounding
- Flame retardant
- Flexible
- Resists common fluids and solvents
- Continuous operating temperature:-55℃-125℃
- Shrink Temperature:90℃

Dimensions

Size (mm)	Expanded	After Recovery		ROUND/FLAT	Standard Package M/Spool
	Internal Diameter Min(mm)	Internal Diameter Max(mm)	Wall Thickness mm		
1.0	1.5±0.3	0.7	0.28±0.10	Round	200
1.5	2.0±0.3	0.9	0.30±0.10	Round	200
2.0	2.5±0.3	1.0	0.35±0.10	Round	200
2.5	3.0±0.3	1.3	0.36±0.10	Round	200
3.0	3.5±0.4	1.5	0.38±0.10	Round	200
3.5	4.0±0.4	1.8	0.40±0.10	Round	200
4.0	4.5±0.4	2.0	0.45±0.10	Round	200
4.5	5.0±0.4	2.3	0.45±0.10	Round	100
5.0	5.5±0.4	2.5	0.45±0.10	Round	100
6.0	6.5±0.4	3.0	0.50±0.10	Round	100
7.0	7.5±0.4	3.5	0.50±0.10	Flat	100
8.0	8.5±0.5	4.0	0.55±0.10	Flat	100
9.0	9.5±0.5	4.5	0.55±0.10	Flat	100
10.0	10.5±0.5	5.0	0.55±0.10	Flat	100
11.0	11.5±0.5	5.5	0.60±0.10	Flat	100
12.0	12.5±0.5	6.0	0.60±0.10	Flat	100
13.0	13.5±0.5	6.5	0.60±0.10	Flat	100
14.0	14.5±0.5	7.0	0.65±0.10	Flat	100
15.0	15.5±0.6	7.5	0.70±0.10	Flat	100
16.0	17.0±0.6	8.0	0.70±0.10	Flat	100
17.0	17.5±0.6	8.5	0.70±0.10	Flat	100
18.0	19.0±0.7	9.0	0.70±0.15	Flat	100
20.0	22.0±0.7	10.0	0.75±0.15	Flat	100
22.0	24.0±0.7	11.0	0.80±0.15	Flat	100
25.0	26.0±0.7	12.5	0.90±0.15	Flat	50
28.0	29.0±0.7	14.0	0.90±0.15	Flat	50
30.0	31.5±0.7	15.0	0.95±0.15	Flat	50
35.0	36.5±0.7	17.5	0.95±0.15	Flat	50
40.0	41.5±0.7	20.0	1.00±0.20	Flat	50
45.0	46.0±0.7	22.5	1.00±0.20	Flat	25
50.0	51.0±0.7	25.0	1.00±0.20	Flat	25
60.0	≥60.0	30.0	1.10±0.20	Flat	25
70.0	≥70.0	35.0	1.20±0.20	Flat	25
80.0	≥80.0	40.0	1.30±0.20	Flat	25
90.0	≥90.0	45.0	1.50±0.20	Flat	25
100.0	≥100.0	50.0	1.65±0.20	Flat	25
120.0	≥120.0	60.0	1.70±0.20	Flat	15
150.0	≥150.0	75.0	1.70±0.20	Flat	15
180.0	≥180.0	90.0	1.75±0.20	Flat	15

RSFR-(3X)YG

Size (mm)	Expanded	After Recovery		ROUND/FLAT	Standard Package M/Spool
	Internal D iameter Min(mm)	Internal Diameter Max(mm)	Wall Thickness mm		
3.2	3.2	1.0	0.55±0.15	Round	200
4.8	4.8	1.5	0.60±0.15	Round	100
6.4	6.4	2.0	0.65±0.15	Round	100
9.5	9.5	3.0	0.75±0.15	Flat	50
12.7	12.7	4.0	0.75±0.20	Flat	50
19.1	19.1	6.0	0.85±0.20	Flat	50
25.4	25.4	8.0	1.00±0.20	Flat	50
39	39	13.0	1.50±0.20	Flat	50

Technical Data

Property	Test Method	Stantard	Typical Performance
Tensile strengtn(MPa)	ASTM D2671	≥10.4	11.5
Elongation(%)	ASTM D2671	≥300	450
Tensile strengtn after aging (MPa)	UL224 158℃X168hr	≥7.3	8.5
Elongation after aging(%)	UL224 158℃X168hr	≥200	350
Dieletric strength(kv/mm)	IEC243	≥15	17.5
Volume resistivity(Ω.cm)	ASTM D876	≥$1X10^{14}$	$2.5X10^{14}$

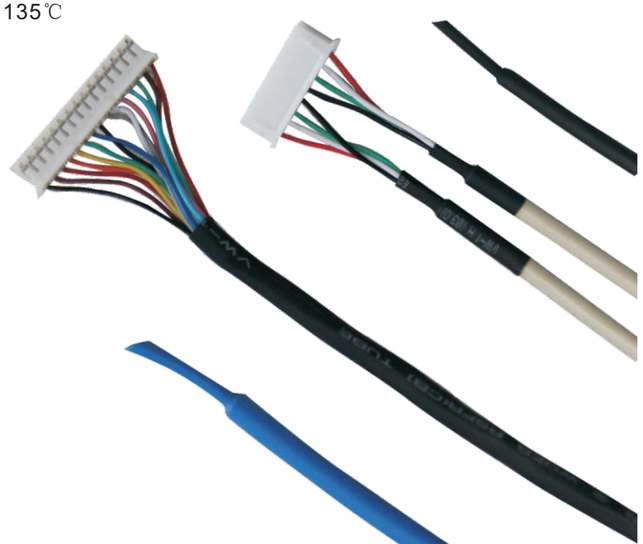
RSFR-135G(2X)

Flame retardant,multi-purpose

heat shrink tubing

Features

- Flexible
- Suitable for various applications
- Continuous Operating Temperature:-55℃ to 135℃
- Fully shrink temperature:120℃
- RoHS compliant
- Meet SAE-AMS-DTL
  -23053/5
  Class 1 and 3

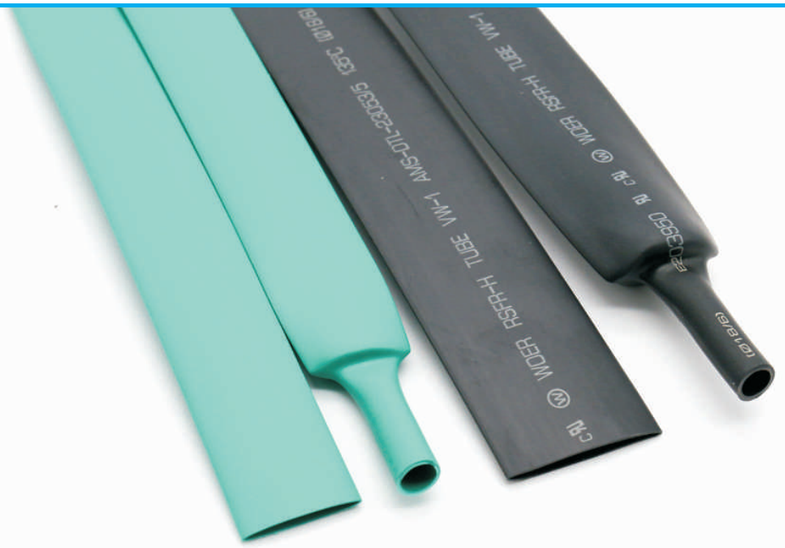


Dimensions

Size		As Supplied	After Recovery		Standard Package
Inch	mm	Internal Diameter mm	Internal Diameter mm	Wall Thickness mm	Spool Length M/spool
3/64	0.8	1.30±0.10	≤0.58	0.41±0.07	305
1/16	1.2	1.70±0.10	≤0.79	0.43±0.07	305
3/32	2.0	2.50±0.10	≤1.17	0.51±0.07	305
1/8	3.0	3.50±0.10	≤1.58	0.51±0.07	305
3/16	4.5	5.00±0.10	≤2.36	0.51±0.07	152.5
1/4	6.0	6.60±0.10	≤3.18	0.64±0.07	152.5
3/8	9.0	9.65±0.10	≤4.75	0.64±0.07	76.25
1/2	12.0	13.00±0.20	≤6.35	0.64±0.07	76.25
3/4	18.0	19.50±0.30	≤9.53	0.76±0.07	76.25
1	25.0	26.00±0.30	≤12.7	0.89±0.07	100
5/4	30.0	31.00±0.50	≤15.0	0.89±0.07	61
3/2	38.0	39.00±0.50	≤19.1	1.00±0.07	50
2	50.0	52.50±1.50	≤25.4	1.15±0.07	50
3	75.0	79.00±2.00	≤38.1	1.27±0.07	50
4	100.0	104.00±2.00	≤50.8	1.40±0.07	50

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥10.4
Ultimate elongation(%)	ASTM D 2671	≥200
Tensile strengthn after heat aged (Mpa)	158℃X168h	≥7.3
Ultimate elongation after heat aged (%)	158℃X168h	≥100
Longitudinal change(%)	ASTM D 2671	−5%~+5%
Flammability	ASTM D 2671 C method	VW−1
Voltage withstand	UL 224,2500V,60s	No breakdown
Heat shock	UL 224,250℃×4h	No cracks,flowing or dripping
Dielectric strength (kv/mm)	ASTM D 149	≥15
Volume resistivity (Ω·cm)	ASTM D 876	$\geq 10^{14}$



RSFR-135G(3X)

Ultra thin wall, very flexible heat shrink tubing

Dimensions

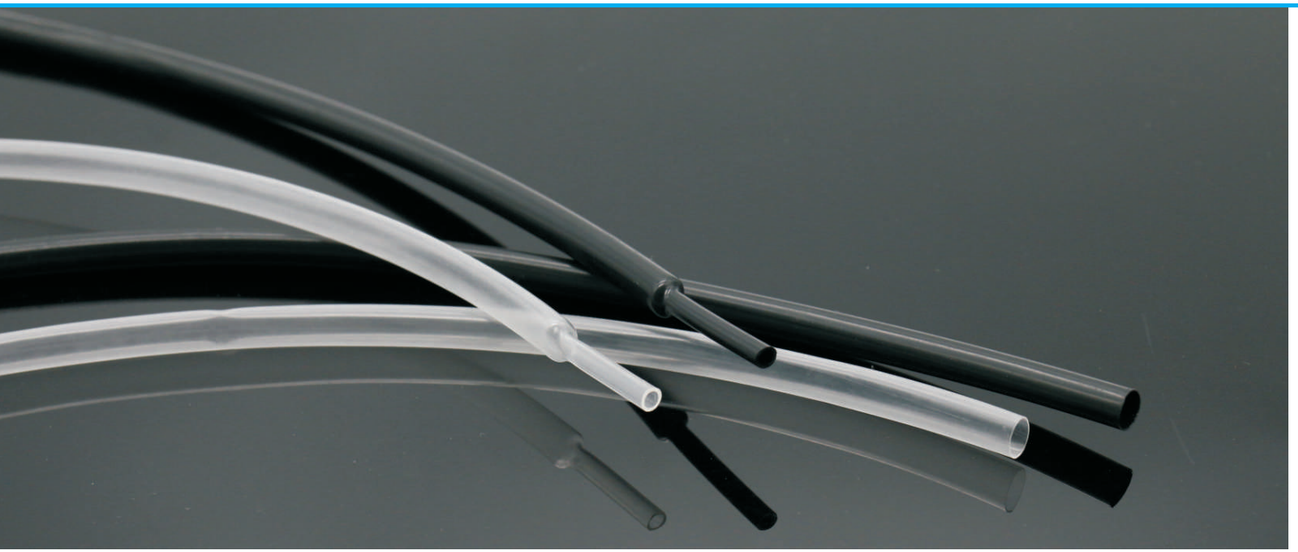
Size		As Supplied	After Recovery		Standard Package
Inch	mm	Internal Diameter Min(mm)	Internal Diameter Max(mm)	Wall Thickness Nom(mm)	Spool Length M/spool
1/16	1.5	1.60±0.10	≤0.5	0.45±0.10	200
1/8	3.0	3.20±0.10	≤1.0	0.55±0.10	200
3/16	4.5	4.70±0.10	≤1.5	0.60±0.10	100
1/4	6.0	6.20±0.10	≤2.0	0.65±0.10	100
3/8	9.0	9.30±0.20	≤3.0	0.75±0.15	50
1/2	12.0	12.30±0.20	≤4.0	0.75±0.15	50
5/8	15.0	15.30±0.20	≤5.0	0.80±0.15	50
3/4	18.0	18.30±0.20	≤6.0	0.85±0.15	50
1	24.0	24.40±0.30	≤8.0	1.00±0.20	25
1–1/4	30.0	30.40±0.30	≤10.0	1.15±0.20	25
1–1/2	39.0	39.60±0.50	≤13.0	1.50±0.20	25
2	50.0	50.60±0.50	≤16.0	2.50±0.20	25
	60.0	61.50±1.00	≤20.0	2.60±0.20	25
	70.0	71.50±1.00	≤23.0	2.60±0.20	25
3	80.0	81.50±1.00	≤26.0	2.60±0.20	25
	90.0	91.50±1.00	≤30.0	2.60±0.20	25
4	100	101.50±1.00	≤33.0	2.60±0.20	25

Features

- Ultra thin wall
- Very flexible
- Flame retardant
- Continuous Operating Temperature:-55℃to135℃
- Fully shrink temperature:≥120℃
- RoHS compliant

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	≥10.4
Ultimate elongation(%)	ASTM D 2671	≥200
Tensile strength after heat aged (Mpa)	158℃X168h	≥7.3
Ultimate elongation after heat aged (%)	158℃X168h	≥100
Longitudinal change(%)	ASTM D 2671	–5%~+5%
Flammability	ASTM D 2671 C method	VW–1
Voltage withstand	UL 224,2500V,60s	No breakdown
Heat shock	UL 224,250℃×4h	No cracks,flowing or dripping
Dielectric strength (kv/mm)	ASTM D 149	≥15
Volume resistivity (Ω·cm)	ASTM D 876	$\geq 10^{14}$



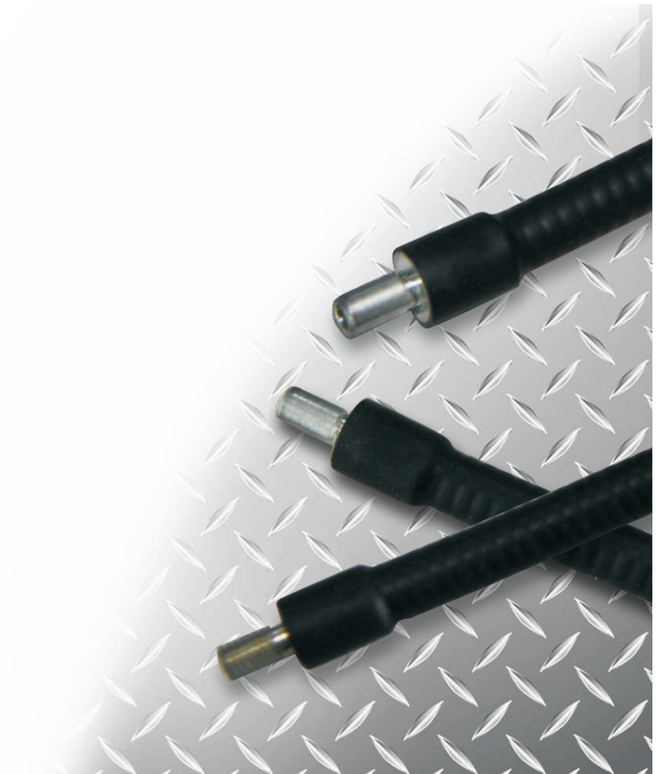
RSFR-105

Economical, non self-extinguishing

Halogen free, heat shrink tubing

Features

- Flexible
- Halogen free
- Temperature:-55℃ to 105℃
- Shrink temperature:⩾105℃
- RoHS and Sony compliant



Dimension

Size		As Supplied	After Recovery		Standard Package
Inch	mm	Internal Diameter Min(mm)	Internal Diameter Max(mm)	Wall Thickness Nom(mm)	M/spool
3/64	0.6	0.9 ± 0.2	0.50	0.22	200
	0.8	1.1 ± 0.2	0.65	0.28	200
1/16	1.0	1.5 ± 0.2	0.85	0.32	200
	1.5	2.0 ± 0.2	1.00	0.35	200
3/32	2.0	2.5 ± 0.2	1.30	0.38	200
	2.5	3.0 ± 0.2	1.50	0.40	200
1/8	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
3/16	4.5	5.0 ± 0.2	2.5	0.55	100
	5.0	5.5 ± 0.2	3.0	0.55	100
1/4	6.0	6.5 ± 0.2	3.5	0.60	100
5/16	7.0	7.5 ± 0.3	4.0	0.60	100
	8.0	8.5 ± 0.3	4.5	0.60	100
3/8	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
1/ 2	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
5/8	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
3/4	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
1	25	26.0 ± 0.5	14.0	0.95	50
	28	29.0 ± 0.5	15.0	1.00	50
1–1/4	30	31.5 ± 1.0	17.5	1.00	50
	35	36.5 ± 1.0	20.0	1.00	50
1–1/2	40	41.5 ± 1.0	22.5	1.00	50
	45	46.0 ± 1.0	25.0	1.00	25

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 2671	⩾10.4
Ultimate elongation(%)	ASTM D 2671	⩾200
Tensile strengtn after heat aged (Mpa)	136℃X168h	⩾7.3
Ultimate elongation after heat aged (%)	136℃X168h	⩾100
Voltage withstand	2500V,60s	No breakdown
Dielectric strength	ASTM D 149	⩾15
Volume resistivity (Ω·cm)	ASTM D 876	$\geqslant 10^{14}$

RSFR-HT(2X)

150℃ Flame retardant heat shrink tubing

RoHS c UL US

Features

- 2:1 shrink ratio
- Flame retardant
- Good resistance to common fluids and solvents
- UL approved
- Continuous operating temperature:-55℃ ~150℃
- Fully shrink temperature:≥120℃
- 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	Typical Performance
Tensile strength(MPa)	ASTM D2671 C	10.4
Ultimate elongation(%)	ASTM D2671	200
Tensile strength after heat aged(Mpa)	180℃X168h	7.3
Ultimate elongation after heat aged(%)	180℃X168hr	100
Corrosion	UI224	Pass
Flammability	ASTM D 2671method	VW–1
Voltage withstand	2500V, 60s	No breakdown
Heat shock(%)	250℃X4h	No cracks, flowing or dripping
Cold blend	–30℃X1h	No cracks
Dielectric strength (kv/mm)	ASTM D 149	≥15
Volume resistivity (Ω·cm)	ASTM D 876	$\geqslant 10^{14}$
Water absorption(%)	UL 224	≤0.5

PO

Non-shrinkable,Irradiated,Flexible

Flame-retardant,Polyolefin Tubing

RoHS

Features

- Flexible
- Flame retardant
- Operating temperature:-55℃～+125℃
- 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	Typical Performance
Tensile strength(MPa)	ASTM D 2671	⩾10.4
Ultimate elongation(%)	ASTM D 2671	⩾200
Flammability	UL 224	Self-extinguishing
Water absorption (%)	ASTM D 570	⩽0.5
Dielectric strength (kv/mm)	ASTM D 149	⩾15
Volume resistivity (Ω·cm)	ASTM D 876	$\geqslant 10^{14}$

WMPG

Heat Shrink Busbar Tube

RoHS

Features

- Manufactured from cross-linked polyolefin
- Used to offer insulation protection for busbar in switchgear and substation
- Protects against short circuit and electrical leakage cause by small animals
- Reduces busbar clearance requirements
- RoHS compliant
- Shrink temperature: start at 70℃, and fully recovered at 125℃
- Color: yellow, red, green, blue, black

Technical Data

Property	Test Method	Standard Value
Tensile Strength	GB/T 1040	⩾8MPa
Elongation at Break	GB/T 1040	⩾300%
Tensile Strength after Aging	GB/T 1040, GB/T 7141	⩾6.4MPa (130℃,168 hrs)
Elongation at Break after Aging	GB/T 1040, GB/T 7141	⩾100% (130℃,168 hrs)
Hardness (Shore A)	ISO 868	⩽90
Dielectric Strength	IEC 60243	⩾25kV/mm
Volume Resistivity	IEC 60093	$\geqslant 1\times10^{14}\Omega\cdot cm$
Dielectric Constant	IEC 60250	⩽3.0
Longitudinal Shrinkage	ASTM-D-2671	⩽10%
Eccentricity	ASTM-D-2671	⩽30%(10kV); ⩽50%(35kV)
Water Absorption	ISO 62	⩽0.5%
Flammability (Oxygen Index)	ISO 4589	⩾28




Dimensions

1kV WMPG Series

Product No.	Busbar Width (square)/mm	As Supplied/mm		After Recovered/mm		Standard Package (m/roll)
		ID (Min)	Wall Thickness	ID (Max)	Wall Thickness	
1kV WMPG 30	30	31.5±1.0	0.50±0.15	≤15	0.95±0.15	50
1kV WMPG 35	35	36.5±1.5	0.50±0.15	≤18	1.00±0.15	50
1kV WMPG 40	40	41.5±1.5	0.55±0.15	≤20	1.00±0.15	25
1kV WMPG 45	45	41.5±1.5	0.55±0.15	≤23	1.00±0.15	25
1kV WMPG 50	50	51.0±2.0	0.55±0.15	≤25	1.00±0.15	25
1kV WMPG 60	60	60.0±3.0	0.60±0.20	≤30	1.30±0.20	25
1kV WMPG 65*	65	65.0±3.0	0.60±0.20	≤33	1.30±0.20	25
1kV WMPG 70	70	70.0±3.0	0.65±0.20	≤35	1.30±0.20	25
1kV WMPG 75*	75	75.0±3.0	0.65±0.20	≤38	1.30±0.20	25
1kV WMPG 80	80/100	80.0±3.0	0.65±0.20	≤40	1.46±0.20	25
1kV WMPG 85*	80/100	85.0±3.0	0.65±0.20	≤43	1.46±0.20	25
1kV WMPG 90	100	90.0±4.0	0.65±0.20	≤45	1.46±0.20	25
1kV WMPG 100	100/120	100.0±4.0	0.65±0.20	≤50	1.46±0.20	25
1kV WMPG 120	150	120.0±4.0	0.65±0.20	≤60	1.46±0.20	25
1kV WMPG 150	180	150.0±4.0	0.65±0.20	≤75	1.46±0.20	25
1kV WMPG 180	MAX	180.0±4.0	0.65±0.20	≤90	1.46±0.20	25
1kV WMPG 210*	MAX	210.0±4.0	0.65±0.20	≤105	1.46±0.20	25
1kV WMPG 230*	MAX	230.0±4.0	0.65±0.20	≤115	1.46±0.20	25
1kV WMPG 250*	MAX	250.0±5.0	0.65±0.20	≤125	1.46±0.20	25
1kV WMPG 300*	MAX	300.0±5.0	0.65±0.20	≤150	1.46±0.20	25

10kV WMPG Series

Product No.	Busbar Width (square/circular) /mm	As Supplied/mm		After Recovered/mm		Standard Package (m/roll)
		ID (Min)	Wall Thickness	ID (Max)	Wall Thickness	
10kV WMPG 15/8	15/12	15.0±0.8	1.20±0.30	≤8	2.10±0.30	25
10kV WMPG 20/10	20/15	20.0±0.8	1.20±0.30	≤10	2.10±0.30	25
10kV WMPG 25/12	25/18	25.0±0.8	1.20±0.30	≤12.5	2.10±0.30	25
10kV WMPG 30/15	32/20	30.0±0.8	1.20±0.30	≤15	2.10±0.30	25
10kV WMPG 40/20	40/30	40.0±1.0	1.20±0.30	≤20	2.30±0.30	25
10kV WMPG 50/25	50/35	50.0±3.0	1.20±0.30	≤25	2.30±0.30	25
10kV WMPG 60/30	60/45	60.0±3.0	1.20±0.30	≤30	2.30±0.30	25
10kV WMPG 65/33*	65/45	65.0±3.0	1.20±0.30	≤33	2.30±0.30	25
10kV WMPG 70/35	70/50	70.0±3.0	1.20±0.30	≤35	2.30±0.30	25
10kV WMPG 75/38*	75/50	75.0±3.0	1.20±0.30	≤38	2.30±0.30	25
10kV WMPG 80/40	80/55	80.0±3.0	1.20±0.30	≤40	2.30±0.30	25
10kV WMPG 85/43*	80/65	85.0±3.0	1.20±0.30	≤43	2.40±0.30	25
10kV WMPG 100/50	100/75	100.0±4.0	1.20±0.30	≤50	2.40±0.30	25
10kV WMPG 120/60	120/85	120.0±4.0	1.20±0.30	≤60	2.40±0.30	25
10kV WMPG 150/75	150/105	150.0±4.0	1.20±0.30	≤75	2.40±0.30	25
10kV WMPG 180/90	180/120	180.0±5.0	1.20±0.30	≤90	2.40±0.30	25
10kV WMPG 210/105*	210/140	210.0±5.0	1.20±0.40	≤105	2.40±0.30	20
10kV WMPG 230/115*	230/150	230.0±5.0	1.20±0.40	≤115	2.40±0.30	20
10kV WMPG 250/125*	250/180	250.0±5.0	1.20±0.40	≤125	2.40±0.30	20
10kV WMPG 300/150*	300/210	300.0±5.0	1.20±0.40	≤150	2.40±0.30	15

20kV WMPG Series

Product No.	Busbar Width (square/circular) /mm	As Supplied/mm		After Recovered/mm		Standard Package (m/roll)
		ID (Min)	Wall Thickness	ID (Max)	Wall Thickness	
20kV WMPG 15/8	15/12	15.0±0.8	1.30±0.30	≤8	2.50±0.20	25
20kV WMPG 20/10	20/15	20.0±0.8	1.30±0.30	≤10	2.50±0.20	25
20kV WMPG 25/13	25/18	25.0±0.8	1.30±0.30	≤13	2.50±0.20	25
20kV WMPG 30/15	32/20	30.0±0.8	1.30±0.30	≤15	2.50±0.20	25
20kV WMPG 40/20	40/30	40.0±1.0	1.40±0.40	≤20	2.80±0.30	25
20kV WMPG 50/25	50/35	50.0±2.0	1.40±0.40	≤25	2.80±0.30	25
20kV WMPG 60/30	60/45	60.0±3.0	1.40±0.40	≤30	2.80±0.30	25
20kV WMPG 65/33*	65/45	65.0±3.0	1.40±0.40	≤33	2.80±0.30	25
20kV WMPG 70/35	70/50	70.0±3.0	1.40±0.40	≤35	2.80±0.30	25
20kV WMPG 75/38	75/50	75.0±3.0	1.40±0.40	≤38	2.80±0.30	25
20kV WMPG 80/40	80/55	80.0±3.0	1.40±0.40	≤40	2.80±0.30	25
20kV WMPG 85/43*	80/65	85.0±3.0	1.40±0.40	≤43	2.80±0.30	25
20kV WMPG 100/50	100/75	100.0±4.0	1.40±0.40	≤50	2.80±0.30	25
20kV WMPG 120/60	120/85	120.0±4.0	1.40±0.40	≤60	2.80±0.30	25
20kV WMPG 150/75	150/105	150.0±4.0	1.40±0.40	≤75	2.80±0.30	25
20kV WMPG 180/90	180/120	180.0±5.0	1.40±0.40	≤90	2.80±0.30	25
20kV WMPG 210/105*	210/40	210.0±5.0	1.40±0.40	≤105	2.80±0.30	20
20kV WMPG 230/115*	230/150	230.0±5.0	1.40±0.40	≤115	2.80±0.30	20

35kV WMPG Series

Product No.	Busbar Width (square)/mm	As Supplied/mm		After Recovered/mm		Standard Package (m/roll)
		ID (Min)	Wall Thickness	ID (Max)	Wall Thickness	
35kV WMPG 30/15	30	30.0±1.0	1.90±0.50	≤15	4.00±0.30	15
35kV WMPG 35/18	30/40	35.0±1.0	1.90±0.50	≤18	4.00±0.30	15
35kV WMPG 40/20	40	40.0±1.0	1.90±0.50	≤20	4.00±0.30	15
35kV WMPG 50/25	50	50.0±2.0	1.90±0.50	≤25	4.00±0.30	15
35kV WMPG 60/30	60	60.0±3.0	1.90±0.50	≤30	4.00±0.30	15
35kV WMPG 65/33*	60/70	65.0±3.0	1.90±0.50	≤33	4.00±0.30	15
35kV WMPG 70/35	70	70.0±3.0	1.90±0.50	≤35	4.00±0.30	15
35kV WMPG 75/38*	70/80	75.0±3.0	1.90±0.50	≤38	4.00±0.30	15
35kV WMPG 80/40	80/100	80.0±4.0	1.90±0.50	≤40	4.00±0.30	15
35kV WMPG 100/50	100/120	100.0±4.0	1.90±0.50	≤50	4.00±0.30	15
35kV WMPG 120/60	150	120.0±4.0	1.90±0.50	≤60	4.00±0.30	15
35kV WMPG 150/75	180	150.0±4.0	1.90±0.50	≤75	4.00±0.30	15
35kV WMPG 180/90*	MAX.	180.0±5.0	1.90±0.50	≤90	4.00±0.30	15
35kV WMPG 210/105*	MAX.	210.0±5.0	1.90±0.50	≤105	4.00±0.30	15
35kV WMPG 230/115*	MAX.	230.0±5.0	1.90±0.50	≤115	4.00±0.30	15
35kV WMPG 250/125*	MAX.	250.0±5.0	1.90±0.50	≤125	4.00±0.30	15
35kV WMPG 300/150*	MAX.	300.0±5.0	1.90±0.50	≤150	4.00±0.30	15

Note: Size with * are not standard stock items.

RSFRNH-BTM

Medium Voltage Cross-linked Polyolefin Bus-Bar Tubing

RSFRNH–BTM is made from specially formulated radiation cross–linked halogen free compounds. It can provide high resistance to tracking and arcing, as well as to enhance the insulation properties of bus–bar in switchgear and substation. Suitable for application in insulating medium voltage bus bars, cable termination and joints from 1KV to 24KV.

RoHS

Features

- Flame Retardant
- Reduces bus bar clearance requirements
- Protect against accidental flashover
- Anti-track
- Halogen free
- Tested to IEC60684 standards for medium voltage switch-gear applications to above 20KV
- Continuous Operating Temperature: -40 ℃ to 110℃ ,can be used in 175℃
- Shrink Temperature:120℃

Technical Data

Physical

Property	Test Method	Standard Performance	Typical Performance
Tensile strength	IEC 60684	≥8Mpa	10.5 Mpa
Elongation	IEC 60684	≥400%	550%
Heat Aging tensile strength	150℃×168h	≥5Mpa	9.5 Mpa
Heat Aging elongation	150℃×168h	≥200%	450%
Heat shock	225℃×4h	no cracking or flowing	no cracking or flowing
Flammability	IEC 60684	Passed	Passed
Low temperature Flexibility	–40℃×4h	no cracking	no cracking

Electrical

Property	Test Method	Standard Performance	Typical Performance
Dielectric Strength	IEC 60684	≥20KV/mm	23kv/mm
Volume Resistivity	IEC 60684	$\geq 1\times10^{13}\,\Omega\cdot cm$	$2\times10^{14}\,\Omega\cdot cm$
Tracking(2.5kv,60min)	IEC 60684	no cracking	no cracking

Selection Table

Normal size (mm)	As supplied/mm	After recovered/mm		Standard length m/Roll
	Inside diameter (Min)	Inside diameter(Max)	Wall thickness (Min)	
Φ20/6	20	6	2.2±0.3	25
Φ28/9	28	9	2.6±0.3	25
Φ33/10	33	10	2.8±0.3	25
Φ40/12	40	12	2.8±0.3	25
Φ45/14	45	14	3.0±0.3	25
Φ55/16	55	16	3.0±0.3	25
Φ65/19	65	19	3.0±0.3	25
Φ75/22	75	22	3.0±0.3	25
Φ85/25	85	25	3.2±0.3	25
Φ95/30	95	30	3.2±0.3	25
Φ115/34	115	34	3.3±0.3	25
Φ130/36	130	36	3.3±0.3	25
Φ160/50	160	50	3.3±0.3	25
Φ180/56	180	56	3.3±0.3	25

WRSLD

Heat Shrink Neoprene Tube

RoHS

Features

- Made of cross linked chlorinated polyolefin
- Resistant to most fluids and solvents, including aviation and ground-vehicle fuels, lubricating oil, and hydraulic fluids
- Good flexibility at low temperature
- Resistant to abrasion and physical abuse while providing flexibility and strain relief
- Performance meets requirements of SAE-AMS-DTL-23053/1.
- Widely used for insulation, strain relief, and abrasion protection on cable harnesses and wire bundles in the military and aerospace industries. Especially suitable for applications requiring exposure to fluids and solvents at elevated temperatures.
- RoHS compliant
- Operation temperature: -45℃ to 105℃
- Shrink temperature: start at 90℃, and fully recovered at 130℃
- Standard color: Black.

Dimensions

Product No.	As Supplied/mm	After Recovered/mm	
	Inner diamter	Inner diamter	Wall thickness **
WRSLD-3.2/1.5	≥3.2	≤1.5	0.7±0.2
WRSLD-4.8/2.5	≥4.8	≤2.5	0.8±0.2
WRSLD-6.4/3.4	≥6.4	≤3.5	0.9±0.2
WRSLD-9.5/5.4	≥9.5	≤5.4	1.0±0.2
WRSLD-12.7/7.1	≥12.7	≤7.1	1.2±0.2
WRSLD-15.8/8.7	≥15.8	≤8.7	1.3±0.2
WRSLD-19.1/10.5	≥19.1	≤10.5	1.4±0.2
WRSLD-22.2/12.5	≥22.2	≤12.5	1.7±0.2
WRSLD-25.4/14.5	≥25.4	≤14.5	1.8±0.2
WRSLD-31.8/18.0	≥31.8	≤18.0	2.2±0.2
WRSLD-38.1/21.5	≥38.1	≤21.5	2.4±0.2

**Wall thickness will be less when shrinkage is restricted.

Technical Data

Property	Test Method	Typical Performance
Tensile strength(MPa)	ASTM D 412	≥10.3
Elongation at Break (%)	ASTM D 412	≥225%
Tensile stress at 200% elongation(MPa)	ASTM D 412	≤10.3
Tensile Strength After Aging (120℃,168 hrs) (%)	SAE-AMS-DTL-23053	≥8.3
Elongation at Break after Aging (120℃,168 hrs) (%)	SAE-AMS-DTL-23053	≥175%
Dielectric Strength (kV/mm)	ASTM D 2671	≥11.8
Volume resistivity (Ω·cm)	ASTM D 876	$\geq 1\times10^{11}$
Flammability(Self extinguishing 15 seconds; 3 inches)	ASTM D2671, Procedure A	Pass
Fungus resistance	ASTM G 21	No growth
Low temperature flexibility	-70℃,4 hrs	No cracking