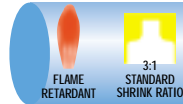




ELECTRICAL
MECHANICAL
INSULATION

CSNUSA



Heavy Wall
Crosslinked Polyolefin

FCFW



FCFW

Heavy Wall, Heat Shrinkable Tubing insulates and protects electrical splices and terminations where maximum flame retardancy and exceptional insulating and sealing characteristics are required

Features

- High impact and abrasion resistance - capable of withstanding severe mechanical abuse of U.R.D., submersible and direct burial installations
- FCFW tubing will not split or rupture during installation, even when overheated
- Optional Thermoplastic Adhesive Liner provides complete environmental protection and insulation
- Flame retardant
- Meets: UL 486D, CSA C22.2 No. 198.2, ANSI C119-1, Western Underground Guides Nos. 2.4, 2.5, MIL-DTL-23053/15, Class 1, IEEE 383 Vertical Flame Test, ANSI C37.20.2, ICEA S-19-8 and NEMA insulation thickness requirements
- Rated for 600 V, 90°C continuous use
- Continuous operating temperature: -55°C to 110°C
- Shrink temperature: 120°C

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Technical Data

Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D412, ISO 37	2100 psi (14.5 MPa)
Elongation	ASTM D412, ISO 37	600%
Elongation after Heat Aging (168 hrs at 175°C)	ASTM D2671, ISO 37	500% (250%)
Longitudinal Change on Recovery	ASTM D2671	+1%, -10%
Specific Gravity	ASTM D792	1.2
Heat Shock (4hrs at 225°C)	ASTM D2671	No cracking or flowing
Low Temperature Flexibility (4hrs at -55°C)	ASTM D2671	No cracking or splitting
Hardness (Shore D)	ASTM D2240	50D
Oxygen Index	ASTM D2863	27.00
Flammability	ASTM D2671	Flame Retardant

Electrical

Dielectric Strength	ASTM D149	500 V/Mil (20kV/mm)
Dielectric Voltage Withstand (2500V, 60Hz, 1 min.)	UL 486D	No breakdown, 24kV-1 min, 15kV-4hrs.
Volume Resistivity	ASTM D257	10 ¹⁰ ohm-cm

Chemical

Fluid Resistance	MIL-DTL-23053/15	Good to Excellent
Copper Corrosion	ASTM D2671	No Corrosion
Water Absorption	ASTM D570	0.2%
Fungus Resistance	ASTM G21	No Growth

Adhesive

Adhesive softening point	ASTM E28	92°C +/- 5°C
Adhesive peel strength (300mm/min at 23°C)	ASTM D1000	
- to steel, alum, P.E.		35 pli
- to PVC		20 pli
Adhesive Lap Shear (1in./min at 23°C)	ASTM D1002	125 psi (0.875 MPa)
Adhesive Blocking (30°C)	ASTM D1146	No blocking
Adhesive Water Adsorption	ASTM D570	less than 0.3%
Water Penetration	STM 706	No penetration after 236 hrs. (min) of continuous immersion.

CANUSA

There's no end to what we cover

CANUSA-EMI is a global company providing electrical and mechanical insulation solutions for a variety of industries and applications. Starting from products created by extensive developmental research at Shaw Industries (incorporated 1955), CANUSA-EMI is a recognized world leader in the provisioning of high quality heat shrink products.

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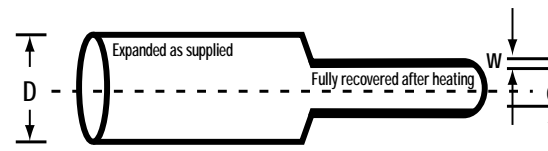
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Dimensions

ORDER REF. NO. METRIC	EXPANDED INTERNAL DIAMETER (MIN)	EXPANDED		RECOVERED		WALL THICKNESS (NOM)	APPLICATION RANGE FOR GENERAL USE		600/1000V SINGLE CONDUCTOR SIZE	STANDARD LENGTHS	
		mm	IN	mm	IN		mm	IN		AWG/MCM	AA m
XXXX	YYYY										
0089	0350*	8.9	0.35	3.0	0.12	1.8	0.07	3.5-8	.15-.3	#14 - #10	1.2 6, 48
0130	0500*	13.0	0.51	4.1	0.16	2.4	0.080	4.5-11	.2-.45	#8 - #6	1.2 6, 48
0191	0750	19.1	0.75	6.1	0.24	2.5	0.09	6.5-16.5	.25-.65	#6 - #2	1.2 9, 12, 48
0279	1100	27.9	1.10	8.9	0.35	3.0	0.12	10-24	.4-.95	#1 - 3/0	1.2 9, 12, 48
0381	1500	38.1	1.50	11.9	0.47	4.1	0.16	13-35	.5-1.4	2/0 - 350	1.2 9, 12, 48
0508	2000	50.8	2.00	16.0	0.63	4.1	0.16	17.5-44	.7-1.75	250 - 500	1.2 9, 12, 48
0681	2700	68.1	2.70	22.1	0.87	4.1	0.16	24-59	.95-2.3	600 - 100	1.2 12, 18, 48
0899	3500*	89.9	3.54	30.0	1.18	4.1	0.16	33-80	1.3-3.1	800 - 125	1.2 12, 18, 48
1199	4700*	119.9	4.72	39.9	1.57	4.2	0.17	44-104	1.75-4.1	1500-2500	1.2 12, 18, 48

* FCFW 3500 and FCFW 4700 are not UL or CSA listed.

** Meets the material performance of MIL Spec only.



Ordering

Refer to the table to select the size which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

To Order in Metric Units:

FCFW - ^{Order Ref. No.}XXXX - ^{Color}CC - ^{Options}OO - ^{Standard Length}AA - M

To Order in Imperial Units:

FCFW - ^{Order Ref. No.}YYYY - ^{Color}CC - ^{Options}OO - ^{Standard Length}BB - I

Standard Colors (CC)

Order Code	Color
BK	BLACK
RD	RED

* For additional colors please see price list.

Options (O)

	Lined	Unlined
Unprinted	00	01
Printed	02	03

Standards: UL486D, CSA C22.2 No. 198.2, ANSI C119.1, Western Underground Guides Nos. 2.4, 2.5, MIL-DTL-23053/15, Class 1, IEEE 383 Vertical Flame Test, ANSI C37.20.2, ICEA and NEMA insulation thickness requirements.

Note: Non-standard colors, sizes and lengths available subject to factory quotation. **REV 1**