

# Heat Shrink Tubing

## Extra Heavy Duty

### CFW - Heavy Wall Crosslinked Polyolefin



Specifications											
Part Number	Expanded		Recovered				General use Application Range		600/1000V Single Conductor Size	Standard Lengths	
	Internal Diameter (min)		Internal Diameter (max)	Wall Thickness (nom)						M	IN
	D	IN	d	mm	w	IN	mm	IN	AWG/MCM		
CFW-0350-BK	8.9	0.35	3.0	0.12	1.8	0.07	3.5-8	.15-.3	#14 - #10	1.2	48
CFW-0350-RD	8.9	0.35	3.0	0.12	1.8	0.07	3.5-8	.15-.3	#14 - #10	1.2	48
CFW-0500-BK	13.0	0.51	4.1	0.16	2.4	0.09	4.5-11	.2-.45	#8 - #6	1.2	48
CFW-0500-RD	13.0	0.51	4.1	0.16	2.4	0.09	4.5-11	.2-.45	#8 - #6	1.2	48
CFW-0750-BK	19.1	0.75	6.1	0.24	2.4	0.09	6.5-16.5	.25-.65	#6 - #2	1.2	48
CFW-0750-RD	19.1	0.75	6.1	0.24	2.4	0.09	6.5-16.5	.25-.65	#6 - #2	1.2	48
CFW-1100-BK	27.9	1.10	8.9	0.35	3.0	0.12	10-24	.4-.95	#1 - 3/0	1.2	48
CFW-1100-RD	27.9	1.10	8.9	0.35	3.0	0.12	10-24	.4-.95	#1 - 3/0	1.2	48
CFW-1500-BK	38.1	1.50	11.9	0.47	4.1	0.16	13-35	.5-1.4	2/0 - 350	1.2	48
CFW-1500-RD	38.1	1.50	11.9	0.47	4.1	0.16	13-35	.5-1.4	2/0 - 350	1.2	48
CFW-2000-BK	50.8	2.00	16.0	0.63	4.1	0.16	17.5-44	.7-1.75	250 - 500	1.2	48
CFW-2700-BK	68.1	2.70	22.1	0.87	4.1	0.16	24-59	.95-2.3	600 - 100	1.2	48
CFW-3500-BK*	89.9	3.54	30.0	1.18	4.1	0.16	33-80	1.3-3.1	800 - 125	1.2	48
CFW-4700-BK*	119.9	4.72	39.9	1.57	4.2	0.17	44-104	1.75-4.1	1500 - 2500	1.2	48

\*CFW 3500 and CFW 4700 are not UL or CSA listed

### Ordering Guidelines

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified. **CFW Heat Shrink Tubing** is available in Black-BK and Red-RD.

### Features

- 3 to 1 shrink ratio
- High impact, abrasion, corrosion, and chemical resistance capable of withstanding severe mechanical requirements of U.R.D., submersible and direct burial installations
- Thermoplastic Adhesive Liner provides complete environmental protection and insulation
- Meets: UL 486D, CSA C22.2 No. 198.2, ANSI C119-1, Western Underground Guide Numbers 2.4, 2.5, ICEA 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

### Technical Data

Physical Property	Test Method	Typical Performance	Chemical Property	Test Method	Typical Performance
Tensile Strength	ASTM D412, ISO 37	2100 psi (14.5 MPa)	Fluid Resistance	MIL-DTL-23053/15	Good to excellent
Elongation	ASTM D412, ISO 37	600%	Copper Corrosion	ASTM D2671	No Corrosion
Elongation after heat aging (168 hours at 175°C)	ASTM D2671, ISO 37	500% (250%)	Water Absorption	ASTM D570	0.2%
Longitudinal change on recovery	ASTM D2671	+1%, -10%	Fungus Resistance	ASTM G21	No growth
Specific Gravity	ASTM D792	1.1	Adhesive Property		
Heat shock (4 hours at 255°C)	ASTM D2671	No cracking or flowing	Adhesive softening point	ASTM E28	92°C +/- 5°C
Low temperature flexibility (4 hours at -55°C)	ASTM D2671	No cracking or splitting	Adhesive peel strength (300mm/min at 23°C) -to steel, aluminum, P.E.	ASTM D1000	35 pli
Hardness (Shore D)	ASTM D2240	50D	Adhesive peel strength (300mm/min at 23°C) -PVC	ASTM D1000	20 pli
Oxygen Index	ASTM D2863	27.00	Adhesive lap shear (1in./min at 23°C)	ASTM D1002	125 psi (0.875 MPa)
Flammability	ASTM D2671	Flame Retardant	Adhesive Blocking (30°C)	ASTM D1146	No blocking
Electrical Property			Adhesive water absorption	ASTM D570	less than 0.3%
Dielectric Strength	ASTM D149	500 V/Mil (20kV/mm)	Water penetration	STM 706	No penetration after 236 hrs of continuous immersion.
Dielectric Voltage Withstand (2500V, 60Hz, 1 min.)	UL 486D	No breakdown, 24kV - 1 Min. 15kV - 4 hrs.			
Volume Resistivity	ASTM D257	10 <sup>16</sup> ohm-cm			