

Features and Advantages

		EPOXY FIBERGLASS (SW)	PVC SCH 40	PVC SCH 80	GALVANIZED RIGID STEEL	PVC-COATED STEEL	ALUMINUM
Cable Fault Fiberglass conduit will not melt or weld the wire to the inside of the conduit under fault conditions as can happen with PVC, steel and aluminum conduit.		Not Affected	Melt/ Fuse	Melt/ Fuse	Weld	Weld	Weld
Toxicity/Halogens Fiberglass conduit does not release toxic halogens (i.e. chlorine and bromine) when burning.		No	Yes	Yes	No	Yes	No
Weight Comparison	3/4"	17	22	29	109	112	36
(SW IPS - lbs/per 100 ft)	1"	19	33	41	161	174	54
Fiberglass conduit offers the lowest weight and is still very rigid.	1-1/4"	23	44	59	218	237	72
	1-1/2"	33	53	73	263	281	89
	2"	38	75	99	350	358	119
	2-1/2"	46	119	152	559	593	187
	3"	60	161	202	727	772	246
	4"	72	231	302	1,030	1,089	350
	5"	120	313	433	1,400	1,535	479
	6"	142	407	595	1,840	2,025	630
	8"	214	608	805	2,238	2,338	846
Temperature Range (°F) Fiberglass has an excellent wide temperature range.		-60° to +250°	+40° to +150°	+40° to +150°	N/A	N/A	N/A
Handling in Low Temperatures Fiberglass conduit has been shown to retain its properties at low temperatures allowing year-round installations.		Excellent	Brittle	Brittle	Excellent	Excellent	Excellent

		CURRENT PVC AND RTRC SPACING PER NEC	CHAMPION FIBERGLASS UL-LISTED SUPPORT SPANS			CHAMPION FIBERGLASS UL-LISTED – XW SUPPORT SPANS	GRC, PVC-COATED AND ALUMINUM SPACING
			SW	MW	HW		
Support Spans	3/4"	3 ft	10 ft	—	—	10 ft	10 ft
Champion Fiberglass support spans are	1"	3 ft	10 ft	—	—	10 ft	12 ft
UL listed. Conduit listed for support	1-1/4"	3 ft	10 ft	—	—	15 ft	14 ft
spacing other than shown in NEC Table	1-1/2"	3 ft	10 ft	—	—	15 ft	14 ft
355 shall be permitted to be installed in	2"	3 ft	12 ft	—	—	15 ft	16 ft
accordance with the UL Listing.	2-1/2"	3 ft	12 ft	—	—	15 ft	16 ft
	3"	3 ft	12 ft	—	—	17 ft	20 ft
	4"	3 ft	12 ft	—	14 ft	17 ft	20 ft
	5"	3 ft	—	13 ft	14 ft	17 ft	20 ft
	6"	3 ft	—	13 ft	14 ft	17 ft	20 ft

UL designates Champion Fiberglass MW for 5" and 6" as SW.

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Burn-through (Cable Pull) Fiberglass conduit is an excellent material for avoiding “burn-through” when pulling cable.	No	Yes	Yes	No	No	No	
Coefficient of Friction Using PVC Jacketed Cable Fiberglass conduit offers one of the lowest coefficient of friction available today for conduit systems. It is completely resistant to any of the current pulling lubricants’ corrosive properties.	0.38	0.90	0.90	0.55	0.55	0.61	
Conductivity Fiberglass conduit acts as an excellent insulator.	No	No	No	Yes	Yes	Yes	
Ultraviolet Stable (Sunlight Resistance) (Per UL 2515 and CSA C22.2 No. 211.3-96)	Good	Poor	Poor	Excellent	Poor	Excellent	
Coefficient of Thermal Expansion [1.2 x 10-5 in/in/°F [2.2 10-5 m/m/°C]] * The coefficient is .7 for the steel and 3.5 for the PVC layer. Because of the broad difference between the two materials, adhesion is severely affected during temperature contraction and expansion.	1.0	3.5	3.5	0.7	3.5/0.7*	3.5	
Distance Between Expansion Joints (ft)	200	50	50	200	200	50	
NECA Labor Installation Rates (Normal installation man/hours per/100 ft) (REF: NECA Manual of Labor Units) * Reduce labor units by 10% for 20-foot lengths	3/4" 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 3-1/2" 4" 5" 6"	5.5 5.8 6.0* 6.4* 6.8* 7.1* 7.5* 7.9* 8.3* 8.6* 9.0*	4.5 5.3 6.0 7.0 8.0 9.0 10.0 12.0 14.0 18.0 24.0	5.4 6.3 7.2 8.4 9.6 10.8 12.0 N/A 16.8 21.6 28.8	6.0 7.0 8.0 9.0 11.0 15.0 20.0 25.0 30.0 38.0 48.0	8.0 10.0 12.0 15.0 18.0 21.0 26.0 32.0 38.0 45.0 60.0	5.5 6.0 6.5 7.0 8.0 10.0 12.0 15.0 19.0 24.0 30.0
Field Handling Due to its light weight, ease of cutting and integral bell, fiberglass conduit is very easy to install.	Excellent	Good	Good	Very Poor	Very Poor	Poor	
Memory Fiberglass conduit will retain its original shape after impact or compression.	Yes	No	No	No	No	No	