

# Features and Advantages

		EPOXY FIBERGLASS (XW)	PVC SCH 40	PVC SCH 80	GALVANIZED RIGID STEEL	PVC-COATED STEEL	ALUMINUM
<b>Cable Fault</b> 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
<b>Toxicity/Halogens</b> Fiberglass conduit does not release toxic halogens (i.e. chlorine and bromine) when burning.		No	Yes	Yes	No	Yes	No
<b>Weight Comparison</b>							
	3/4"	61	22	29	109	112	36
	{XW - lbs/per 100 ft}	68	33	41	161	174	54
	Fiberglass conduit offers the lowest weight and is still very rigid.	82	44	59	218	237	72
	1-1/4"	118	53	73	263	281	89
	1-1/2"	126	75	99	350	358	119
	2"	154	119	152	559	593	187
	2-1/2"	182	161	202	727	772	246
	3"	238	231	302	1,030	1,089	350
	4"	294	313	433	1,400	1,535	479
	5"	350	407	595	1,840	2,025	630
	6"						
<b>Temperature Range (°F)</b> Fiberglass has an excellent wide temperature range.		-60° to +250°	+40° to +150°	+40° to +150°	N/A	N/A	N/A
<b>Handling in Low Temperatures</b> 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 – XW SUPPORT SPANS	GRC, PVC-COATED AND ALUMINUM SPACING
<b>Support Spans</b>				
	3/4"	3'	10'	10'
	1"	3'	10'	12'
	Champion Fiberglass support spans are UL listed. Conduit listed for support spacing other than shown in NEC Table	3'	15'	14'
	1-1/4"	3'	15'	14'
	1-1/2"	3'	15'	16'
	2"	3'	15'	16'
	2-1/2"	3'	17'	20'
	3"	3'	17'	20'
	4"	3'	17'	20'
	5"	3'	17'	20'
	6"	3'	17'	20'

	EPOXY FIBERGLASS (XW)	PVC SCH 40	PVC SCH 80	GALVANIZED RIGID STEEL	PVC-COATED STEEL	ALUMINUM
<b>Burn-through (Cable Pull)</b> Fiberglass conduit is an excellent material for avoiding "burn-through" when pulling cable.	No	Yes	Yes	No	No	No
<b>Coefficient of Friction</b> 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
<b>Conductivity</b> Fiberglass conduit acts as an excellent insulator.	No	No	No	Yes	Yes	Yes
<b>Ultraviolet Stable (Sunlight Resistance)</b> (Per UL 2515 and CSA C22.2 No. 211.3-96)	Good	Poor	Poor	Excellent	Poor	Excellent
<b>Coefficient of Thermal Expansion</b> <b>[1.2 x 10<sup>-5</sup> in/in/°F [2.2 10<sup>-5</sup> m/m/°C]]</b> * The coefficient is 0.7 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
<b>Distance Between Expansion Joints (ft)</b>	200'	50'	50'	200'	200'	50'
<b>NECA Labor Installation Rates</b> (Normal installation man/hours per/100 ft) (REF: NECA Manual of Labor Units) * Reduce labor units by 10% for 20-foot lengths	3/4" 5.5 1" 5.8 1-1/4" 6.0* 1-1/2" 6.4* 2" 6.8* 2-1/2" 7.1* 3" 7.5* 3-1/2" 7.9* 4" 8.3* 5" 8.6* 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
<b>Field Handling</b> 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
<b>Memory</b> Fiberglass conduit will retain its original shape after impact or compression.	Yes	No	No	No	No	No

