



Champion Fiberglass vs PVC Conduit

The field is busy – but there’s only one spot for number one. See how fiberglass conduit stacks up to the competition in crucial areas like weight, corrosion resistance and installation cost.

		EPOXY FIBERGLASS (SW)	PVC SCH 40	PVC SCH 80	PVC-COATED STEEL
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
Fiberglass conduit does not release toxic halogens (i.e. chlorine and bromine) when burning.		No	Yes	Yes	Yes
(SW IPS – lbs/per 100 ft) Fiberglass conduit offers the lowest weight and is still very rigid.	3/4"	17	22	29	112
	1"	19	33	41	174
	1-1/4"	23	44	59	237
	1-1/2"	33	53	73	281
	2"	38	75	99	358
	2-1/2"	46	119	152	593
	3"	60	161	202	772
	4"	72	231	302	1,089
	5"	120	313	433	1,535
	6"	142	407	595	2,025
	8"	214	608	805	2,338
Fiberglass has an excellent wide temperature range.		-60° to +250°	+40° to +150°	+40° to +150°	N/A
Fiberglass conduit has been shown to retain its properties at low temperatures allowing year-round installations.		Excellent	Brittle	Brittle	Excellent
Fiberglass conduit is an excellent material for avoiding “burn-through” when pulling cable.		No	Yes	Yes	No
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
(Per UL 2515 and CSA C22.2 No. 211.3-96)		Good	Poor	Poor	Poor
(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	4.5	5.4	8.0
	1"	5.8	5.3	6.3	10.0
	1-1/4"	6.0*	6.0	7.2	12.0
	1-1/2"	6.4*	7.0	8.4	15.0
	2"	6.8*	8.0	9.6	18.0
	2-1/2"	7.1*	9.0	10.8	21.0
	3"	7.5*	10.0	12.0	26.0
	3-1/2"	7.9*	12.0	N/A	32.0
	4"	8.3*	14.0	16.8	38.0
	5"	8.6*	18.0	21.6	45.0
	6"	9.0*	24.0	28.8	60.0
Fiberglass conduit will retain its original shape after impact or compression.		Yes	No	No	No