CHAMPION FIBERGLASS®

Fiberglass vs. the Competition

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	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 (SW IPS – lbs/per 100 ft) Fiberglass conduit offers the lowest weight and is still very rigid. * SW ** MW	3/4"	17*	23	29	105	105	36
	1"	19*	34	43	153	153	53
	1-1/4"	23*	46	59	201	201	70
	1-1/2"	33*	55	99	246	246	86
	2"	38*	73	99	334	334	116
	2-1/2"	46*	125	152	527	527	183
	3"	60*	164	212	690	690	239
	3-1/2"	65*	198	262	831	831	288
	4"	72*	234	310	982	982	340
	5"	120**	318	431	1344	1344	465
	6"	142**	412	592	1770	1770	612
Temperature Range (°F) Fiberglass has an excellent wide temperature range.		-40° to +230°	+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 NEC, PVC & RTC SPACING	CHAMPION FIBERGLASS UL LISTED SUPPORT SPANS			CHAMPION FIBERGLASS UL LISTED – XW SUPPORT SPANS	GRC, PVC-COATED & ALUMINUM SPACING
			SW	MW	HW		
Support Spans Champion Fiberglass support spans are UL Listed. Conduit listed for support spacing other than shown in NEC Table 355 shall be permitted to be installed in accordance with the UL listing.	3/4"	3 ft	10 ft	–	–	10 ft	10 ft
	1"	3 ft	10 ft	–	–	10 ft	12 ft
	1-1/4"	5 ft	10 ft	–	–	15 ft	14 ft
	1-1/2"	5 ft	10 ft	–	–	15 ft	14 ft
	2"	5 ft	12 ft	–	–	15 ft	16 ft
	2-1/2"	6 ft	12 ft	–	–	15 ft	16 ft
	3"	6 ft	12 ft	–	–	17 ft	20 ft
	4"	7 ft	12 ft	–	14 ft	17 ft	20 ft
	5"	7 ft	–	13 ft	14 ft	17 ft	20 ft
	6"	8 ft	–	13 ft	14 ft	17 ft	20 ft

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

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Do More.®

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FEATURES & ADVANTAGES

		EPOXY FIBERGLASS	PVC SCH 40	PVC SCH 80	GALVANIZED RIGID STEEL	PVC-COATED STEEL	ALUMINUM
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 coefficients 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	0.25
Conductivity Fiberglass conduit acts as an excellent insulator.		No	No	No	Yes	Yes	Yes
UV Stable (Sunlight Resistance) (Per UL 2515 & CSA C22.2 No. 211.3-96)		Good	Poor	Poor	Excellent	Poor	Excellent
Coefficient of Thermal Expansion (10-5 inch/inch/°F) *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.		1.5	3.4	3.4	0.65	3.4/0.65*	1.3
Distance Between Expansion Joints (ft)		200	50	50	200	200	50
NECA Labor Installation Rates (Normal installation man/hours per/100 ft) (REF: 2017-2018 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