WIRE FILL

Maximum allowable percentage wire fill per Table 1, Chapter 9, National Electric Code 2008

XW Sizes									
				Percent of cross section of conduit & tubing for conductors					
Trade Size		Internal Diameter		Total Area		1 conductor 53% fill		2 conductors 31% fill		Over 2 conductors 40% fill	
		in	(mm)	sq in	(sq mm)	sq in	(sq mm)	sq in	(sq mm)	sq in	(sq mm)
¾	*(19)*	0.910	*(23)*	0.650	*(419)*	0.345	*(222)*	0.202	*(130)*	0.260	*(168)*
1	*(25)*	1.175	*(30)*	1.084	*(697)*	0.575	*(369)*	0.336	*(216)*	0.434	*(279)*
1¼	*(32)*	1.520	*(39)*	1.815	*(1170)*	0.962	*(620)*	0.563	*(363)*	0.726	*(468)*
1½	*(38)*	1.760	*(45)*	2.433	*(1569)*	1.289	*(832)*	0.754	*(486)*	0.973	*(628)*
2	*(51)*	2.000	*(51)*	3.142	*(2027)*	1.665	*(1074)*	0.974	*(628)*	1.257	*(811)*
2½	*(64)*	2.500	*(64)*	4.909	*(3167)*	2.602	*(1679)*	1.522	*(982)*	1.964	*(1267)*
3	*(76)*	3.000	*(76)*	7.069	*(4560)*	3.747	*(2417)*	2.191	*(1414)*	2.828	*(1824)*
3½	*(89)*	3.500	*(89)*	9.621	*(6207)*	5.099	*(3290)*	2.983	*(1924)*	3.848	*(2483)*
4	*(102)*	4.000	*(102)*	12.566	*(8107)*	6.660	*(4297)*	3.895	*(2513)*	5.026	*(3243)*
5	*(127)*	5.000	*(127)*	19.635	*(12668)*	10.407	*(6714)*	6.087	*(3927)*	7.854	*(5067)*
6	*(152)*	6.000	*(152)*	28.274	*(18241)*	14.985	*(9668)*	8.765	*(5655)*	11.3010	*(7296)*

COEFFICIENT OF FRICTION

The following data for static coefficient of friction is for dry conduit and non-lubricated cable at a temperature of 72° F ***(22° C)***.

	Conduit Material					
Cable Material	**Epoxy Fiberglass Conduit**	**PVC Conduit**	**Steel Conduit**	**Aluminum Conduit**	**Concrete Conduit**	**Polyethylene Conduit**
PVC	.38	.90	.55	.25	.95	1.90
XLP (Cross-linked Polyethylene)	.23	.90	.75	1.50	.75	2.00
LDPE (Polyethylene)	.25	.50	.50	.62	.60	1.70
Neoprene	.53	2.60	1.60	.26	1.35	3.30
Concentric Neutral	.16	--	--	--	--	--
Tech (Armored) Cable	.16	2.60	1.60	.26	1.35	3.30

CHAMPION FIBERGLASS®
6400 Spring Stuebner Rd Spring, TX 77389 Main: 281.655.8900 Fax: 281.257.2523
» info@championfiberglass.com » championfiberglass.com