

Coaxial Cable Specifications

Dielectric Type	Time Delay (ns/ft)	Propagation Velocity (% of c)
Solid Polyethylene (PE)	1.54	65.9
Foam Polyethylene (FE)	1.27	80.0
Foam Polystyrene (FS)	1.12	91.0
Air Space Polyethylene (ASP)	1.15-1.21	84-88
Solid Teflon (ST)	1.46	69.4
Air Space Teflon (AST)	1.13-1.20	85-90

Properties for popular coaxial cables are listed below. Click [here](#) for coax cable formulas.

c = speed of light in vacuum

Type (/U)	MIL-W-17	Z ₀ (Ω)	Dielectric Type	Capacitance (pF/ft)	O.D. (in.)	dB/100 ft @400 MHz	V _{max} (rms)	Shield
RG-4		50.0	PE	30.8	0.226	11.7	1,900	Braid
RG-5		52.5	PE	28.5	0.332	7.0	3,000	Braid
RG-5A/B		50.0	PE	30.8	0.328	6.5	3,000	Braid
RG-6	/2-RG6	76.0	PE	20.0	0.332	7.4	2,700	Braid
RG-6A	/2-RG6	75.0	PE	20.6	0.332	6.5	2,700	Braid
RG-8		52.0	PE	29.6	0.405	6.0	4,000	Braid
RG-8A		52.0	PE	29.6	0.405	6.0	5,000	Braid
RG-8X		50.0	FE	26	0.24	7.9		Braid
RG-9		51.0	PE	30.2	0.420	5.9	4,000	Braid
RG-9A		51.0	PE	30.2	0.420	6.1	4,000	Braid
RG-9B		50.0	PE	30.8	0.420	6.1	5,000	Braid
RG-10		52.0	PE	29.6	0.463	6.0	4,000	Braid
RG-10A		52.0	PE	29.6	0.463	6.0	5,000	Braid
RG-11	/6-RG11	75.0	PE	20.6	0.405	5.7	4,000	Braid
RG-11A	/6-RG11	75.0	PE	20.6	0.405	5.2	5,000	Braid
RG-12	/6-RG12	75.0	PE	20.6	0.463	5.7	4,000	Braid
RG-12A	/6-RG12	75.0	PE	20.6	0.463	5.2	5,000	Braid
RG-17A		52.0	PE	29.6	0.870	2.8	11,000	Braid
RG-22	/15-RG22	95.0	PE	16.3	0.405	10.5	1,000	Braid
RG-22A/B	/15-RG22	95.0	PE	16.3	0.420	10.5	1,000	Braid
RG-23/A	/16-RG23	125.0	PE	12.0	0.650	5.2	3,000	Braid
RG-24/A	/16-RG24	125.0	PE	12.0	0.708	5.2	3,000	Braid
RG-34	/24-RG34	71.0	PE	21.7	0.625	5.3	5,200	Braid
RG-34A	/24-RG34	75.0	PE	20.6	0.630	5.3	6,500	Braid
RG-35	/64-RG35	71.0	PE	21.7	0.928	2.8	10,000	Braid
RG-35A/B	/64-RG35	75.0	PE	20.6	0.928	2.8	10,000	Braid
RG-55B		53.5	PE	28.8	0.200	11.7	1,900	Braid
RG-58	/28-RG58	53.5	PE	28.8	0.195	11.7	1,900	Braid

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RG-58A	/28-RG58	52.0	PE	29.6	0.195	13.2	1,900	Braid
RG-58B		53.5	PE	28.8	0.195	14.0	1,900	Braid
RG-58C	/28-RG58	50.0	PE	30.8	0.195	14.0	1,900	Braid
RG-59/A	/29-RG59	73.0	PE	21.1	0.242	10.5	2,300	Braid
RG-59B	/29-RG59	75.0	PE	20.6	0.242	9.0	2,300	Braid
RG-62/A/B	/30-RG62	93.0	ASP	13.5	0.242	8.0	750	Braid
RG-63/A/B	/31-RG63	125.0	ASP	10.0	0.405	5.5	1,000	Braid
RG-65/A	/34-RG65	950.0	ASP	44.0	0.405	16 @5MHz	1,000	Braid
RG-71/A/B	/90-RG71	93.0	ASP	13.5	0.245	8.0	750	Braid
RG-79/A/B	/31-RG79	125.0	ASP	10.0	0.436	5.5	1,000	Braid
RG-83		35.0	PE	44.0	0.405	9.0	2,000	Braid
RG-88		48.0		50.0	0.515	0.7 @1MHz	10,000	Braid
RG-108/A	/45-RG108	78.0	PE	19.7	0.235	2.8 @10MHz	1,000	Braid
RG-111/A	/15-RG111	95.0	PE	16.3	0.478	10.5	1,000	Braid
RG-114/A	/47-RG114	185.0	ASP	6.5	0.405	8.5	1,000	Braid
RG-119	/52-RG119	50.0	ST	29.4	0.465	3.8	6,000	Braid
RG-120	/52-RG120	50.0	ST	29.4	0.523	3.8	6,000	Braid
RG-122	/54-RG122	50.0	PE	30.8	0.160	18.0	1,900	Braid
RG-130	/56-RG130	95.0	PE	17.0	0.625	8.8	3,000	Braid
RG-131	/56-RG131	95.0	PE	17.0	0.683	8.8	3,000	Braid
RG-133/A	/100-RG133	95.0	PE	16.3	0.405	5.7	4,000	Braid
RG-141/A		50.0	ST	29.4	0.190	9.0	1,900	Braid
RG-142/A/B	/60-RG142	50.0	ST	29.4	0.195	9.0	1,900	Braid
RG-144	/62-RG144	75.0	ST	19.5	0.410	4.5	5,000	Braid
RG-164	/64-RG164	75.0	PE	20.6	0.870	2.8	10,000	Braid
RG-165	/65-RG165	50.0	ST	29.4	0.410	5.0	5,000	Braid
RG-166	/65-RG166	50.0	ST	29.4	0.460	5.0	5,000	Braid
RG-177	/67-RG177	50.0	PE	30.8	0.895	2.8	11,000	Braid
RG-178/A/B	/93-RG178	50.0	ST	29.4	0.072	29.0	1,000	Braid
RG-179	/94-RG179	70.0	ST	20.9	0.100	21.0	1,200	Braid
RG-179A/B	/94-RG179	75.0	ST	19.5	0.100	21.0	1,200	Braid
RG-180	/95-RG180	93.0	ST	15.4	0.140	17.0	1,500	Braid
RG-180A/B	/95-RG180	95.0	ST	15.4	0.140	17.0	1,500	Braid
RG-210	/97-RG210	93.0	ASP	13.5	0.242	8.0	750	Braid
RG-211/A	/72-RG211	50.0	ST	29.4	0.730	2.3	7,000	Braid
RG-212	/73-RG212	50.0	PE	29.4	0.332	6.5	3,000	Braid
RG-213	/74-RG213	50.0	PE	30.8	0.405	5.5	5,000	Braid
RG-214	/75-RG214	50.0	PE	30.8	0.425	5.5	5,000	Braid
RG-215	/74-RG215	50.0	PE	30.8	0.463	5.5	5,000	Braid
RG-216	/77-RG216	75.0	PE	20.6	0.425	5.2	5,000	Braid
RG-217	/78-RG217	50.0	PE	30.8	0.545	4.3	7,000	Braid
RG-218	/79-RG218	50.0	PE	30.8	0.870	2.5	11,000	Braid
RG-219	/79-RG219	50.0	PE	30.8	0.928	2.5	11,000	Braid
RG-223	/84-RG223	50.0	PE	19.8	0.211	8.8	1,900	Dbl Braid
RG-302	/110-RG302	75.0	ST	19.5	0.201	8.0	2,300	Braid
RG-303	/111-RG303	50.0	ST	29.4	0.170	9.0	1,900	Braid
RG-304	/112-RG304	50.0	ST	29.4	0.280	6.0	3,000	Braid
RG-307/A	/116-RG307	75.0	80	16.9	0.270	7.5	1,000	Braid
RG-316	/113-RG316	50.0	ST	29.4	0.102	20.0	1,200	Braid

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RG-391	/126-RG391	72.0		23.0	0.405	15.0	5,000	Braid
RG-392	/126-RG392	72.0		23.0	0.475	15.0	5,000	Braid
RG-393	/127-RG393	50.0	ST	29.4	0.390	5.0	5,000	Braid
RG-400	/128-RG400	50.0	ST	29.4	0.195	9.6	1,900	Braid
RG-401	/129-RG401	50.0	ST	29.4	0.250	4.6	3,000	Cu. S-R
RG-402	/130-RG402	50.0	ST	29.4	0.141	7.2	2,500	Cu. S-R
RG-403	/131-RG403	50.0	ST	29.4	0.116	29.0	2,500	Braid
RG-405	/133-RG405	50.0	ST	29.4	0.086	13.0	1,500	Cu. S-R
9914 (Belden)		50.0		26.0	0.405	10.0	-----	

Cable Attenuation (measured in db per 100 feet)									
Cable	1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
RG-58	0.44	1.4	4.1	4.8	7.5	11.8			
RG-8X	0.2	0.78	2.0	3.0	4.5	6.0	7.9	8.8	
RG-213	0.17	0.55	1.3	1.9	2.5	4.1	7.5	8.0	8.2
RG-6	0.16	0.57	1.4	2.0	2.8	4.3	5.6	6.0	6.1
RG-11	0.14	0.42	1.0	1.5	2.2	3.5	4.1	5.2	6.6
RF9913**	0.15	0.4	0.9	1.4	1.8	2.6	3.6	4.2	4.5
BURY-FLEX™	0.26	0.52	1.1	1.5	2.0	2.9	3.8	4.9	5.3
RG-59	0.6	1.1	2.4	3.4	4.9	7.0	9.7	11.1	12.0
RG-214	0.17	0.55	1.3	1.9	2.7	4.1	6.5	7.6	9.0

Notes:
* Bury-Flex attenuation is very close to LMR400 (2.1 dB @ 400 MHz)
** RG-8 (#WM106) {Not listed on table} has somewhat higher attenuations as compared to Bury-Flex (note that Bury-Flex has a 20+ year abrasive resistant jacket of PE, whereas RG-8 is a Non-Contaminating PVC). RG-8 (WM106) has a double shield.
*** RF9913 (#WM102) Flexi-XL is stranded. Attenuation is slightly higher than standard 9914, but still very low loss.

BURY-FLEX™ was designed by Steve Davis, FCC Licensed K1PEK, one of the principals of DAVIS RF Co. This cable was developed to accomplish several application needs: 1) to be competitive in durability, flexibility, and attenuation specs to LMR 400, Belden 9913, 9914, and 9913F (flex), 2) to be TRULY buriable and flexible for rotator loops, and 3) to serve HF through microwave. The results have proven that these goals and quality standards have been met.



BURY-FLEX™ is a 50 ohm cable with double shield yielding 100% shield coverage, consisting of a 97% braid shield which is tinned for ease of soldering and corrosion protection, PLUS a bonded foil shield for added moisture protection. The velocity factor is 82%. With a loss factor of 2.9 dB/100 ft @ 400 MHz, it is quite competitive with 9913 and LMR 400 (the latter which requires expensive connectors). BURY-FLEX™ uses standard PL-259's or the standard N connector, available from us.

Quite important is the fact that this cable uses a PE (Polyethylene) outer jacket which is highly abrasion resistant, as compared to PVC which is not nearly as durable. This product is direct buriable and PE is non-contaminating to its dielectric or to other cables it is bundled with.

PLEASE NOTE: You should use this product for its various advantages **even if you do not need to bury it** as the **low cost**, and average of **only 82 cents a foot** is well worth all of the other benefits alone. Commercial entities are pleased with its tough, high durometer, outer jacket and many hams can lay this cable in grass and woods without worry of abrasion or animal gnawing.