

ROUND, CONDUCTOR PROPERTIES

Copper & Aluminum

WINDING TENSIONS

WHOLE AWG SIZE	COPPER	ALUMINUM	WHOLE AWG SIZE	COPPER	ALUMINUM
	Recommended Maximum* Tension (Lbs.)	Recommended Maximum* Tension (Lbs.)		Recommended Maximum* Tension (Grams)	Recommended Maximum* Tension (Grams)
4	393.4	209.8	29	546	291
5	311.8	166.3	30	427	228
6	247.3	131.9	31	339	***
7	196.2	104.7	32	274	***
8	155.6	83.0	33	216	***
9	123.3	65.8	34	170	***
10	97.9	52.2	35	134	***
11	77.5	41.4	36	107	***
12	61.5	32.8	37	87	***
13	48.9	26.1	38	68	***
14	38.7	20.7	39	52	***
15	30.7	16.4	40	41	***
16	24.3	13.0	41	34	***
17	19.3	10.3	42	27	***
18	15.3	8.2	43	21	***
19	12.1	6.5	44	17	***
20	9.7	5.1	45	13	***
21	7.7	4.1	46	11	***
22	6.0	3.2			
23	4.8	2.6			
24	3.8	2.0			
25	3.0	731 Grams			
26	2.4	576 Grams			
27	1.9	460 Grams			
28	1.5	362 Grams			

This table contains the maximum recommended winding tensions and is offered as a guide to establishing effective winding tensions. Use the minimum winding tension that produces a good winding. The type of winder, payoff device, and type of coil will vary the tensions used. Some minor variations in the softness of the wire from one lot to another may also dictate minor adjustments.

Note: Start-up acceleration surge can produce tensions well in excess of running tensions and need to be taken into consideration.

* Maximum recommended tensions are based upon 12,000 p.s.i. for copper and 6,400 p.s.i. for aluminum. The units are listed in Lbs. unless indicated by "Grams".