



		A615				Non ASTM			A706				
		Gr 40	Gr 60	Gr 75	Gr 80	Gr 90	Gr 100 Standard	Gr 100 ductile	Gr 60	A615/A706 Gr 60	Gr 80	60 CT**	
Physical Properties	Yield Strength (min) psi	40,000	60,000	75,000	80,000	90,000	100,000	100,000	60,000	60,000	80,000	60,000	
	Yield Strength (max) psi	n/a	n/a	n/a	n/a	n/a	n/a	n/a	78,000	78,000	98,000	78,000	
	Tensile Strength (min) psi	60,000	90,000	100,000	105,000	120,000	120,000	120,000	80,000	80,000	100,000	80,000	
	CE								<0.55%	<0.55%	<0.55%	<0.50%	
	TS / YS Ratio							>1.20	>1.25	>1.25	>1.25	>1.25	
Grade Code and Markings on Bar XX= Bar Size 3,4,5,6,7,8,9,10,11,14,18													
Bar Sizes Available	3 (10mm)	Elongation (min)	11%	9%	7%	7%		7%	10%	14%		12%	14%
		Bending pin(max)	3.5d	3.5d	5d	5d		5d	5d	3d		3.5d	3d
	4,5 (13,16)	Elongation (min)	12%	9%	7%	7%	9%	7%	10%	14%		12%	14%
		Bending pin(max)	3.5d	3.5d	5d	5d	3d	5d	3d	3d		3.5d	3d
	6 (19mm)	Elongation (min)	12%	9%	7%	7%	9%	7%	10%	14%		12%	14%
		Bending pin(max)	5d	5d	5d	5d	4d	5d	4d	4d		5d	4d
	7,8 (22,25)	Elongation (min)		8%	7%	7%		7%	7%	12%	12%	12%	12%
		Bending pin(max)		5d	5d	5d		5d	0	4d	4d	5d	4d
	9,10,11 (29,32,36)	Elongation (min)		7%	6%	6%		6%	10%	12%	12%	12%	12%
		Bending pin(max)		7d	7d	7d		7d	7d	6d	6d	7d	6d
	14,18 (43,57)	Elongation (min)		7%	6%	6%		6%	10%	10%		10%	10%
		Bending pin(max)		9d	9d	9d		9d	9d	8d		9d	8d

\* Grade 90 available in 5 and 6 bar only as of 8/3/2011

\*\*60 CT has a maximum tensile strength of 99,000 ksi

\*\* 80 CT is currently under development (80,000 psi yield)

Bar Designation		Nominal wt		Diameter		Cross sectional area		Perimeter	
Bar No.	metric	lbs / ft	kg / m	inches	mm	in <sup>2</sup>	mm <sup>2</sup>	inches	mm
3	10	0.376	0.560	0.375	9.5	0.11	71	1.178	29.9
4	13	0.668	0.994	0.500	12.7	0.20	129	1.571	39.9
5	16	1.043	1.522	0.625	15.9	0.31	199	1.963	49.9
6	19	1.502	2.235	0.750	19.1	0.44	284	2.356	59.8
7	22	2.044	3.042	0.875	22.2	0.60	387	2.749	69.8
8	25	2.670	3.973	1.000	25.4	0.79	510	3.142	79.8
9	29	3.400	5.060	1.128	28.7	1.00	645	3.544	90.0
10	32	4.303	6.404	1.270	32.3	1.27	819	3.990	101.3
11	36	5.313	7.907	1.410	35.8	1.56	1006	4.430	112.5
14	43	7.650	11.380	1.693	43.0	2.25	1452	5.320	135.1
18	57	13.600	20.240	2.257	57.3	4.00	2581	7.090	180.1



		Canadian Rebar CSA G30.18					
		300R	400R	500R	400W	500W	
Physical Properties	Yield Strength (min) MPa	300	400	500	400	500	
	Yield Strength (max) MPa				525	625	
	Tensile Strength (min) MPa	405	540	675	540	625	
	CE				0.55 max	0.55 max	
	TS / YS Ratio	>1.15	>1.15	>1.15	>1.15	>1.15	
Grade Code and Markings on Bar (XX= Bar Size)							
Bar Sizes Available	10M	Elongation (min)	11%	10%	9%	13%	12%
		Bending pin(max)	2 d	3.5 d	5 d	3 d	4 d
	15M	Elongation (min)	12%	10%	9%	13%	12%
		Bending pin(max)	2 d	3.5 d	5 d	3 d	4 d
	20M	Elongation (min)	n/a	10%	9%	13%	12%
		Bending pin(max)	n/a	5 d	5 d	4 d	4 d
	25M	Elongation (min)	n/a	9%	8%	13%	12%
		Bending pin(max)	n/a	5 d	5 d	4 d	4 d
	30M, 35M	Elongation (min)	n/a	8%	7%	12%	10%
		Bending pin(max)	n/a	7 d	7 d	6 d	6 d
	45M, 55M	Elongation (min)	n/a	7%	6%	12%	10%
		Bending pin(max)	n/a	9 d	9 d	8 d	8 d

Bar No.	Nominal wt		Diameter		Cross sectional area		Perimeter
	lbs / ft	kg / m	inches	mm	in <sup>2</sup>	mm <sup>2</sup>	inches
10M	0.530	0.785	0.445	11.3	0.16	100	1.398
15M	1.050	1.570	0.630	16.0	0.31	200	1.972
20M	1.580	2.355	0.768	19.5	0.47	300	2.413
25M	2.640	3.952	0.992	25.2	0.78	500	3.118
30M	3.690	5.495	1.177	29.9	1.09	700	3.697
35M	5.270	7.850	1.406	35.7	1.55	1000	4.417
45M	7.912	11.775	1.720	43.7	2.33	1500	5.406
55M	13.187	19.625	2.220	56.4	3.88	2500	6.976