



Properties of Grey Cast Iron

(The American Society for Testing Materials (ASTM) numbering system for grey cast iron is established such that the numbers correspond to the minimum tensile strength in kpsi. Thus an ASTM no. 20 cast iron has a minimum tensile strength of 20 kpsi. Note particularly that the tabulations are typical values. Multiply strength in kpsi by 6.89 to get strength in MPa.)

ASTM Number	Tensile Strength kpsi	Compressive Strength kpsi	Shear Modulus of Rupture kpsi	Modulus of Elasticity Mpsi		Endurance Limit kpsi	Brinell Hardness H _b
				Tension	Torsion		
20	22	83	26	9.6-14	3.9-5.6	10	156
25	26	97	32	11.5-14.8	4.6-6.0	11.5	174
30	31	109	40	13.0-16.4	5.6-6.6	14	201
35	36.5	124	48.5	14.5-17.2	5.8-6.9	16	212
40	42.5	140	57	16.0-20	6.4-7.8	18.5	235
50	52.5	164	73	18.8-22.8	7.2-8.0	21.5	262
60	62.5	187.5	88.5	20.4-23.5	7.8-8.5	24.5	302