



MATERIAL SPECIFICATIONS

ASTM

STD	GRADE	UTS (PSI MIN)	YS (PSI MIN)	ELONG. (% MIN)	HARDNESS (BHN)	
A48	20	20 000	---	---	---] GRAY IRON
	25	25 000	---	---	---	
	30	30 000	---	---	---	
	35	35 000	---	---	---	
	40	40 000	---	---	---	
A536	60-40-18	60 000	40 000	18	---] DUCTILE IRON
	65-45-12	65 000	45 000	12	---	
	80-55-06	80 000	55 000	6	---	
	100-70-03	100 000	70 000	3	---	
A897	110-70-11	110 000	70 000	11	241-302] A.D.I.
	130-90-09	130 000	90 000	9	269-341	
	150-110-07	150 000	110 000	7	302-375	
	175-125-04	175 000	125 000	4	341-444	
	200-155-02	200 000	155 000	2	388-477	
	230-185-01	230 000	185 000	1	402-512	

SAE

STD	IRON GRADE	TENSILE / HARDNESS (MPA / MPA)	HARDNESS GRADE	HARDNESS (MPA MIN)		
J431 ACTUAL STANDARD SINCE 1999	G7	0,070	H10	1000] GRAY IRON	
	G9	0,090	H11	1100		
	G10	0,100	H12	1200		
	G11	0,110	H13	1300		
	G12	0,120	H14	1400		
	G13	0,130	H15	1500		
				H16		1600
				H17		1700
				H18		1800
				H19		1900
				H20		2000
				H21		2100
				H22		2200
			H23	2300		
			H24	2400		

➤ The casting grades is a combination of the iron grade and the hardness grade.
FOR EXAMPLE > G10H18

STD	GRADE	UTS (PSI MIN)	YS (PSI MIN)	ELONG. (% MIN)	HARDNESS (BHN)	
J431 FORMER STANDARD PRIOR TO 1999	G1800	17 800	---	---	120-187] GRAY IRON
	G2500	24 500	---	---	170-299	
	G3000	29 500	---	---	187-241	
	G3500	35 400	---	---	207-255	
	G4000	39 500	---	---	217-269	
J434	D4018	58 000	40 000	18	143-170] DUCTILE IRON
	D4512	65 000	45 000	12	156-217	
	D5504	80 000	55 000	4	217-269	
	D7003	102 000	65 000	3	241-302	
J2477	AD 750	110 000	70 000	11	241-302] A.D.I.
	AD 900	130 000	90 000	9	269-341	
	AD 1050	150 000	110 000	7	302-375	
	AD 1200	175 000	125 000	4	341-444	
	AD 1400	200 000	155 000	2	388-477	
	AD1600	230 000	185 000	1	402-512	