

Most popular commercial grades of Ductile Iron are:

ASTM #	Grade/Class	SAE # [REF.]	Minimum Tensile Strength [psi]	Minimum Yield Strength [psi]	Percent Elongation	Typical Hardness [BHN]
A536	60-40-18	J434	60,000	40,000	18%	143-170
A536	65-45-12	J434	65,000	45,000	12%	156-217
A536	80-55-06	J434	80,000	55,000	06%	217-269
A536	100-70-03	J434	100,000	70,000	03%	241-302
A536	120-90-02	J434	120,000	90,000	02%	255-311

Most popular grades of Malleable Iron are:

ASTM #	Grade/Class	SAE # [REF.]	Minimum Tensile Strength [psi]	Minimum Yield Strength [psi]	Percent Elongation	Typical Hardness [BHN]
A47	32510	J158	50,000	32,510	10%	156 max
A220	50005	J158	70,000	50,000	05%	163-217
A220	60004	J158	80,000	60,000	04%	187-241
A220	70003	J158	85,000	70,000	03%	229-269
A220	80002	J158	95,000	80,000	02%	269-302

Most popular grades of Gray Iron are:

ASTM #	Grade/Class	SAE # [REF.]	Minimum Tensile Strength [psi]	Minimum Yield Strength [psi]	Percent Elongation	Typical Hardness [BHN]
A48	Class 25	J431	25,000	~	~	170-229
A48	Class 30	J431	30,000	~	~	187-241
A48	Class 35	J431	35,000	~	~	207-255
A48	Class 40	J431	40,000	~	~	217-269

Popular grades of High Silicon, Molybdenum Alloyed

Ductile Iron (SiMo) are: Grades of High Temperature Ductile Iron

Grade	Casting Hardness, HB	Silicon, %	Molybdenum, %
1	187-241	3.50-4.50	0.5 Maximum
2	187-241	3.50-4.50	0.51-0.70
3	196-269	3.50-4.50	0.70-1.00

Most popular commercial grades of Austempered Ductile Iron (ADI) are:

Specifications	Prior Designation	Grade	Tensile	Yield	Elong	Impact	BHN
ASTM A897		750-500-11	110,000	70,000	11	80	241-302
	1	900-650-09	130,000	90,000	9	75	269-341
	2	1050-750-07	150,000	110,000	7	60	302-375
	3	1200-850-04	175,000	125,000	4	45	341-444
	4	1400-1100-02	200,000	155,000	2	25	388-477
	5	1600-1300-01	230,000	185,000	1	15	402-512