



Summary of Malleable Iron Specifications

Specifying Body	Spec No.	Use	Grade	Min. Tensile Strength-psi	Min. Yield Strength-psi	Elongation in Tension	Microstructure	
ASTM	A47	Ferritic Malleable Iron Castings	32510	50,000	32,500	10%	Temper carbon and ferrite	
ASME	A47M (metric) SA 47		35018	53,000	35,000	18%		
ASTM	A220-84	Pearlitic Malleable Iron Castings	40010	60,000	40,000	10%	Temper carbon is necessary matrix without primary cementite or graphite.	
			45008	65,000	45,000	8		
			45006	65,000	45,000	6		
			50005	70,000	50,000	5		
			60004	80,000	60,000	4		
			70003	85,000	70,000	3		
			80002	95,000	80,000	2		
			90001	105,000	90,000	1		
ASTM	A602	Automotive Malleable Iron Castings		Brinell Hardness		Heat Treatment		
SAE	J158a		M3210	156 Max		Annealed		Ferritic
			M4504	163-217		Air Quenched and Tempered		Ferrite and Tempered Pearlite
			M5003	187-241		Air Quenched and Tempered		Ferrite and Tempered Pearlite
			M5503	187-241		Liquid Quenched and Tempered		Tempered Martensite
			M7002	229-269		Liquid Quenched and Tempered		Tempered Martensite
			M8501	269-302		Liquid Quenched and Tempered		Tempered Martensite