

Gray Iron Specifications

Specifying Body	Spec. Use	Use	Grade or Class	Min. Tensile Strength-PSI	Other Requirments	
ASTM	A48-83	Castings intended for general engineering use where strength is a major consideration. Written exception to this specification takes precedence.	20	20,000	I Test bar shall be related in cooling rate to the critical section of the casting and so specified. II At least two (2) test bars shall be cast and prepared for each casting lot, the lot size being designated. III Test bars shall be cast in dry silica sand molds similar to that in which the castings are poured. IV Tension test shall be under true axial loading. V Hardness, chemical composition, micro-structure, pressure tightness, radio-graphic soundness, dimension, surface finish, etc., can be established as requirements upon written agreement between manufacturer and purchaser.	
			25	25,000		
			30	30,000		
			35	35,000		
			40	40,000		
			45	45,000		
			50	50,000		
			55	55,000		
			60	60,000		
ASTM	A159-83	Automotive gray iron castings.			Brinell Hardness	Total Carbon %
			G1800		187 Max.	
			G2500		170-229	
			G2500a		170-229	3.40 Min. Mandatory
			G3000		187-241	
SAE	J431	Cast in sand molds for the automotive, truck, tractor, and allied industries.	G3500		207-255	
			G3500b		207-255	3.50 Min. Mandatory
			G3500c		207-255	3.40 Min. Mandatory
			G4000		217-269	
			G4000d		241-321	Alloys specified

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