



BENTON
FOUNDRY, INC.

Phone: 570-925-6711

The Casting Specialists

GRAY IRON

Gray Iron has a dense gray structure and offers excellent machinability. Grades 25, 30, 35 and 40 can fill specific requirements for hardness and wear, and heat treatments can yield even higher mechanical properties. Popular applications for gray iron include diesel and gasoline engine blocks and cylinder liners, and structural machine components where vibration dampening is required.

Specifying Body	Spec. No.	Use	Grade or Class	Min. Tensile Strength (PSI)	Other Requirements
ASTM	A126	Valves, flanges and pipe fittings	A	21000	.15% S. Max. .75% P Max
			B	31000	
			C	41000	
ASTM	A48	Castings intended for general engineering use where strength is a major consideration	25	25000	1. Test bar size shall be related in cooling to the critical section of the casting and so specified. 2. At least two test bars shall be cast and prepared for each casting lot, the lot size being designated. 3. Test bars shall be cast in dry silica sand molds similar to that in which the castings are poured. 4. Tension tests shall be under true axial loading.
			30 35	30000 35000	
			40	40000	

					Brinell Hardness	Micro-structure
ASTM SAE	A159 J431	Cast in sand molds for the automobile, truck, tractor, and allied industries	G2500		170-229	Ferritic-Pearlitic
			G3000		187-241	Pearlitic
			G3500		207-255	Pearlitic
			G4000		217-269	Pearlitic
ASTM	A278	Pressure containing parts for use up to 650°F	25		Castings for intended use above 450°F should be stress relieved.	
			30			
			35			