



Iron Specifications

Gray Iron Castings

11/2014

Gray Iron Castings	Description	Typical Range of Mechanical Properties		
		Tensile/Ksi	Yield/Ksi	Elongation/%
ASTM A48-76	Specification for Gray Iron Class 25 Predominately Ferritic Matrix	Min. 25	NA	NA
ASTM A159-77	Specification for Gray Iron - SAE - J431 G2500 Predominately Ferritic Matrix	Min. 25	NA	NA
ASTM A48-76	Specification for Gray Iron Class 30 Ferritic/Pearlitic Matrix	Min. 30	NA	NA
ASTM A159-77	Specification for Gray Iron - SAE - J431 G3000 Ferritic/Pearlitic Matrix	Min. 30	NA	NA
ASTM A48-76	Specification for Gray Iron Class 35 Ferritic/Pearlitic Matrix	Min. 35	NA	NA
ASTM A159-77	Specification for Gray Iron - SAE - J431 G3500 Ferritic/Pearlitic Matrix	Min. 35	NA	NA
ASTM A48-76	Specification for Gray Iron Class 40 Predominately Pearlitic Matrix	Min. 40	NA	NA
ASTM A159-77	Specification for Gray Iron - SAE - J431 G4000 Predominately Pearlitic Matrix	Min. 40	NA	NA
ASTM A48-76	Specification for Gray Iron Class 45 Pearlitic Matrix	Min. 45	NA	NA
ASTM A159-77	Specification for Gray Iron - SAE - J431 G4500 Pearlitic Matrix	Min. 45	NA	NA

Ductile Iron Castings

Alloy/Grade	Description	Typical Range of Mechanical Properties		
		Tensile/Ksi	Yield/Ksi	Elongation/%
ASTM A-536(93)	Specification for Heat Treated (Annealed) Ductile Predominately Ferritic Matrix	60	40	18
SAE J 434	Specification for Heat Treated (Annealed) Ductile - D4018 Predominately Ferritic Matrix	60	40	18
ASTM A-536(93)	Specification for as Cast Ductile Predominately Ferritic Matrix	65	45	12
SAE J 434	Specification for as Cast Ductile - D4512 Predominately Ferritic Matrix	65	40	18
ASTM A-536(93)	Specification for as Cast Ductile Predominately Pearlitic Matrix	80	55	6
SAE J 434	Specification for as Cast Ductile - D5506 Predominately Pearlitic Matrix	80	55	6
ASTM A-536(93)	Specification for Heat Treated - Normalized - Alloyed Ductile Pearlitic Matrix	100	70	3
SAE J 434	Specification for Heat Treated - Normalized - Alloyed Ductile - D7003 Pearlitic Matrix	100	70	3
Austempered	Special Heat Treated Ductile - Alloy content depends on section size	145 to 180	NA	16 to 6

Note: WE Lott has the capacity to supply most cast and ductile specifications. In regard to other organizations standard specifications, we have the ability to cross reference the standard and produce parts to that material specification.