KIRSH FOUNDRY INCORPORATED

Summary of Ductile Iron Specifications

Specifying Body	Spec No.	Use	Grade	Min. Tensile psi	Min. Yield psi	Percent Elongation	Heat Treatment	Other Requirements
ASTM	A536	Shock resistance at low temperatures	60-40-18	60,000	40,000	18	May require a full anneal	Chemical composition is subordinate to mechanical properties; however the content of any chemical element may be specified by mutual agreement.
		Most commonly used grade	65-45-12	65,000	45,000	12		
		Suitable for flame and induction hardening	80-55-06	80,000	55,000	6		
		For strength and wear resistance	100-70-03	100,000	70,000	3	Usually normalized	
SAE	J434c	For automobile and allied industries		BHN of Casting				The microstructure shall consist of at least 80% spheroidal graphite conforming to type I and II and be sustantially free of primary cementite.
			D-4018	170 Max.			May be annealed	
			D-4512	156-217				
			D5506	187-255				
			D-7003	241-302			May be normalized	
ASTM ASME	A395 SA 395	Pressure containing parts for use at elevated temperatures	60-40-18	60,000	40,000	18	Ferritized by annealing	%TC %Si %P %S %C.E BHN Min. 3.0 Max. 2.5 .08 143 187