

DUCTILE IRON SPECIFICATIONS

Specifying Body	Spec. No.	Use	Class or Grade	Min. Tensile PSI	Min. Yield PSI	% Elongation	Heat Treatment
ASTM	A536-84	Maximum shock resistance. Parts to be used at subzero temperatures.	60-40-18	60,000	40,000	18	May be annealed
		Most widely used grade for normal service.	60-45-12	65,000	45,000	12	
		Suitable for flame and induction hardening.	80-55-06	80,000	55,000	6	
		Best combination of strength, wear resistance and response to surface hardening	100-70-03	100,000	70,000	3	Usually Normalized
		Maximum strength and wear resistance	120-90-02	120,000	90,000	2	Quenched & Tempered
SAE	J434c	For automotive and industries		BHN of Castings			
			D-4018	170 Max.			May be annealed
			D-4512	156-217			
			D-5506	187-255			
			D-7003	241-302			May be normalized
			DQ&T	As Specified			Quenched & Tempered
ASTM ASME	A395-80 SA395	Pressure containing parts for use at elevated temperatures	60-40-18	60,000	40,000	18	Ferritized by annealing
ASTM ASME	A476-82 A476-84 (metric) SA476	Ductile iron castings for paper mill dryer rolls for service temperatures up to 450F (230C)	80-60-03	80,000	60,000	3	To be used in as-cast condition. Brinell hardness shall be minimum 201 BHN.
U.S. Military	Mil-1-24137-(Ships) amended	Navy shipboard and other applications requiring shock resistance.	Class A	60,000	45,000	15	Shall be Ferritized by annealing to 190 max. BHN

Tri-Cast Ltd.®

2128 Killian Road

Akron, Ohio 44312

Phone (330)733-8718

Fax (330)733-8786

sales@tri-cast.com for our sales office