



THE ALLIED FOUNDERS PVT. LTD.

An ISO 9001:2015 certified Company, Manufacturers & Exporters of Cast Iron Castings, Ductile Iron Castings, Machined Components & Assemblies

Plot No. N-3, Industrial Estate, Udyambag, Belgaum - 590 008, Karnataka, INDIA.
Tel. : +91-831-2441057. 2440924, E-mail : enquiry@alliedfoundersindia.com
CIN : U27100KA1974PTC002512, Website : www.alliedfoundersindia.com

INTERNATIONAL SPECIFICATIONS FOR DUCTILE (NODULAR /SPHEROIDAL IRON) STANDARDS

Country	Specification	Designation						
India	IS 1083	SG	400/12	400/18	400/18 LT	500/7	600/3	700/2
United Kingdom	BS2789:1985		420/12	400/18	400/18	500/7	600/3	700/2
USA	ASTM A536	Grade	65-45-12	60-40-18	60-40-18	80-55-06	80-60-03	100-70-03
DIN	DIN EN 1563	EN-GJS	400-12	400-18(RT)	400-18(LT)	500-7	600-3	700-2
Germany	Din 1693-1973	GGG	400-12	400-18	--	500-7	600-3	700-2
France	NF A 32-201:1976	FGS	400/12	370/17	370/17	500/7	600/3	700/2
Italy	UNI 4544:1979	GS	400/12	370/17	370/17	500/7	600/3	700/2
Japan	JIS G5502:1982	FCD	(40)392/12	(37)363/17	(37)363/17	(50)490/7	(60)588/3	(70)686/2
International	ISO 1083:1976		400/12	370/17	370/17	500/7	600/3	700/2
Tensile Strength Mpa			448 MIN	414 MIN	414 MIN	552 MIN	600 MIN	689 MIN
Yield Strength Mpa			310 MIN	276 MIN	276 MIN	379 MIN	370 MIN	483 MIN
Elongation %			12%	18%	18%	7%	3%	2%
Impact Joules			-	14 J AVERAGE	12 J AVERAGE	-	-	-
Hardness range BHN			156-217	149-187	149-187	187-255	192-269	241-302
Heat Treatment Requirement			N/A	ANNEALING	ANNEALING	N/A	N/A	N/A
Structure-Matrix			80% FERRITE	95% FERRITE	95% FERRITE	50% FERRITE	60% FERRITE	80% PEARLITE
Total carbon %			3.30-3.80	3.30-3.80	3.30-3.80	3.30-3.80	3.30-3.80	3.20-3.80
silicon %			1.80-2.80	1.80-2.80	1.80-2.80	1.80-2.80	1.80-2.80	1.80-2.80
Mangenes %			0-0.40	0-0.40	0-0.40	0-0.60	0-0.80	0-0.80
Phosphorous %			0-0.06	0-0.06	0-0.06	0-0.06	0-0.06	0-0.06
Sulphur %			0-0.03	0-0.03	0-0.03	0-0.03	0-0.03	0-0.03
Magnesium%			0.025-0.060	0.025-0.060	0.025-0.060	0.025-0.060	0.025-0.060	0.025-0.060
Copper%			-	-	-	0.50-1.00	0.50-1.00	0.50-1.00
Nickel%			-	-	-	-	0.04-0.1	0.04-0.1

NOTE: The above standards for ordering reference only the customer can specify any special requirement. All specifications are subject to change without prior notice.

