

HYDERABAD CASTINGS LIMITED - TECHNICAL SPECIFICATIONS

S.No	ASTM / BS Specification	IS Specification	CHEMICAL COMPOSITION										MECHANICAL PROPERTIES				
			C	Si	Mn	S	p	Cr	Ni	Mo	Others	U.T.S N/MM ²	Y.S. N/MM ²	E.L%	R.A%	Hardness BHN	
1	ASTM A-27 6030	1030 200	0.25	0.60	0.75	0.04	0.045	-	-	-	-	415	205	24	35	-	
	ASTM A-27 6535	1030 230-450	0.25	0.60	1.20	0.04	0.045	-	-	-	-	450	240	24	35	-	
	ASTM A-27 7040	1030 520 280	0.25	0.60	1.20	0.04	0.045	-	-	-	-	520	280	22	30	-	
2	ASTM A-216 WCB	1030 520 280	0.30	0.60	1.00	0.045	0.04	-	-	-	-	485	250	22	35	-	
3	ASTM A-217 Gr. CA 15	3444 10 Gr	0.15	1.50	1.00	0.04	0.04	11.5 14.00	1.00	0.50	-	620	450	18	30	-	
4	ASTM A-148 90-60	2644 640	-	-	-	0.035	0.035	-	-	-	-	640	415	20	40	Min. 190	
	ASTM A-148 105-85	2644 700	-	-	-	0.035	0.035	-	-	-	-	725	585	17	35	Min. 207	
		2644 840	-	-	-	0.035	0.035	-	-	-	-	840	700	12	28	Min. 248	
	ASTM A-148 150-135	2644 1030	-	-	-	0.035	0.035	-	-	-	-	1035	930	7	18	Min. 305	
5	ASTM A-128 Grade-A	276 Gr1	1.05 1.35	1.00	11.00 14.00	0.05	0.07	-	-	-	-	-	-	-	-	Max. 229	
	Grade-B1	276 Gr2	0.90 1.05	1.00	11.00 14.00	0.05	0.07	-	-	-	-	-	-	-	-	Max. 229	
	Grade-C	276 Gr3	1.05 1.35	1.00	11.50 14.00	0.05	0.07	1.50 2.50	-	-	-	-	-	-	-	Max. 229	
	Grade-D	276 Gr4	0.70 1.30	1.00	11.50 14.00	0.05	0.07	-	3.00 4.00	-	-	-	-	-	-	Max. 229	
	Grade-E2	276 Gr5	1.05 1.40	1.00	11.50 14.00	0.05	0.07	-	-	1.80 2.10	-	-	-	-	-	Max. 229	
6	1.5% MN Steel	2708 Gr3	0.25 0.33	0.60	1.20 1.60	0.05	0.05	-	-	-	-	690	495	12	22	Min. 201	
7		2707 Gr I	0.42 0.48	0.60	1.00	0.04	0.04	-	-	-	-	620	320	12	-	-	
		2707 Gr II	0.39 0.45	0.30 0.80	1.00 1.40	0.04	0.04	-	-	-	-	690	490	12	-	-	
8	1.5% Cr Steel	4896 Gr II	0.55 0.70	0.75	0.50 1.00	0.04	0.04	0.80 1.50	0.04	0.20 0.40	-	-	-	-	-	330 380	
9	ASTM A-743 Gr CA6NM		0.06 Max	1.00	1.00	0.03	0.04	11.50 14.00	3.50 4.50	0.40 1.00	-	755	550	15	35	Max. 285	
	ASTM A-743 Gr CF8		0.08 Max	2.00	1.50	0.04	0.04	18.00 21.00	8.00 11.00	-	-	485	205	35	-	-	
	ASTM A-743 Gr CF8M		0.08 Max	2.00	1.50	0.04	0.04	18.00 21.00	9.00 12.00	2.00 3.00	-	485	205	30	-	-	
	ASTM A-743 Gr CF3M		0.03 Max	1.50	1.50	0.04	0.04	17.00 21.00	9.00 13.00	2.00 3.00	-	485	205	30	-	-	
	ASTM A-743 Gr CN-7M(Alloy20)		0.07 Max	1.50	1.50	0.04	0.04	19.00 22.00	27.50 30.50	2.00 3.00	CU 3.0/4.0	425	170	35	-	-	
10	ASTM A-297 Gr HH	4522 7 Gr	0.20 0.50	2.00	2.00	0.04	0.04	24.00 28.00	11.00 14.00	0.50	-	515	240	10	-	-	
	ASTM A-297 Gr HK	4522 9 Gr	0.20 0.60	2.00	2.00	0.04	0.04	24.00 28.00	18.00 22.00	0.50	-	450	240	10	-	-	
	ASTM A-297 Gr HT	4522 12 Gr	0.35 0.75	2.00	2.50	0.04	0.04	15.00 19.00	33.00 37.00	0.50	-	450	-	4	-	-	
	ASTM A-532 Class IA	4771 TYPE IA	2.80 3.60	0.30 0.60	0.30 0.60	0.15	0.30	1.50 2.50	3.00 5.50	0.50	-	-	-	-	-	550	
11	ASTM A-532 Class ID	4771 TYPE IB	2.50 3.60	1.50 2.20	0.30 0.60	0.15	0.30	7.50 9.50	4.00 7.00	0.50	-	-	-	-	-	600	
	ASTM A-532 Class IIIA	4771 TYPE 3	2.30 3.00	0.20 1.50	1.50	0.15	0.30	24.00 28.00	-	-	-	-	-	-	550 600		
	ASTM A-439 TYPE D.5B		2.40	1.00 2.80	1.00	-	0.08	2.00 3.00	34.00 36.00	-	-	379	209	6	-	139 193	