MILL TEST CERTIFICATE

Anjar Works

JSW Steel Limited

SURVEY NO - 659, VILLAGE - VARSAMEDI, TA. - ANJAR (KUTCH) GUJARAT INDIA - 370110

IS- 2062
CM/L- 7945703

TEST CERTIFICATE NO. : JSW/PCMD/717603408
DATE : 17.01.2025

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED
P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024
SPECIFICATION : EN 10025-2 : 2019 / IS 2062 : 2011
GRADE : S355J2+N / E350C
UT STD. : EN10160 S2 E3
Impact Temp.(°C) : -20

Sr. No.	Plate / Coil No.	Heat No.	Thk (MM)	Width (MM)	Length (MM)	Weight (MT)	Mechanical Properties (Transverse Tensile) 1 YS* (MPa)	1 UTS (MPa)	1 %EL 5.65√a	1 %RA	2 YS* (MPa)	2 UTS (MPa)	2 %EL 5.65√a	2 %RA	Bend (Transverse)	CHARPY V-NOTCH IMPACT TEST (Joules) Longitudinal 1	2	3	AVG	Grain size (ASTM E112)	Z - Direction Test (Through Thickness) 1	2	3	AVG	Y Groove Crackability Test				NDTT	Remarks
Specified Requirement						Min	355	490	22	---	355	490	22	---	≤25-2T, >25-NA	---			27	---	---	---	---	25	---	---	---	---	---	---
						Max	---	630	---	---	---	630	---	---		---			---	---	---	---	---	---	---	---	---	---	---	---
1	24LP1306A1	F985421	48.00	2777	14051	14.703	406	566	27	---	413	572	26	---	---	233	202	196	210	---	54	57	56	56	---	---	---	---	---
2	24LP1307A1	F985427	48.00	2777	14051	14.703	427	565	27	---	390	565	27	---	---	300	318	331	316	---	55	51	58	55	---	---	---	---	---

Chemical Composition (%)

HEAT ANALYSIS	Heat No.	C	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Mo	Al	N	Ca	B	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	Al/N	CE**	Pcm
Specified Requirement	**Min**	---	---	---	---	---	---	---	---	---	---	---	---	**0.020**	---	---	---	---	---	---	---	---	---
	Max	**0.220**	**1.600**	**0.025**	**0.025**	**0.550**	---	---	**0.550**	---	---	---	---	---	**0.0120**	---	---	**0.250**	---	---	---	**0.45**	---
	F985421	0.160	1.430	0.002	0.015	0.290	0.022	0.239	0.008	0.015	0.002	0.035	0.001	0.035	0.0048	0.0023	0.0002	0.052	0.247	0.270	7.29	0.42	0.25
	F985427	0.156	1.460	0.002	0.014	0.296	0.023	0.237	0.008	0.014	0.002	0.035	0.001	0.035	0.0045	0.0021	0.0002	0.051	0.245	0.269	7.78	0.42	0.25

PRODUCT ANALYSIS	Heat No.	C	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Mo	Al	N	Ca	B	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	Al/N	CE**	Pcm
Specified Requirement	**Min**	---	---	---	---	---	---	---	---	---	---	---	---	**0.020**	---	---	---	---	---	---	---	---	---
	Max	**0.220**	**1.600**	**0.025**	**0.025**	**0.550**	---	---	**0.550**	---	---	---	---	---	**0.0120**	---	---	**0.250**	---	---	---	**0.45**	---
	F985421	0.158	1.414	0.002	0.015	0.286	0.022	0.235	0.008	0.015	0.002	0.034	0.001	0.034	0.0047	0.0023	0.0002	0.051	0.243	0.266	7.23	0.41	0.24
	F985427	0.154	1.444	0.002	0.014	0.292	0.023	0.233	0.008	0.014	0.002	0.034	0.001	0.034	0.0044	0.0021	0.0002	0.050	0.241	0.265	7.73	0.42	0.24

SGS WITNESSED REVIEWED
HARDAS VASRA
17/03/25
Date & Signature:
SGS INDIA PVT. LTD., AHMEDABAD
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IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT TO IS 2062:2011.
CHEMICAL COMPOSITION & MECHANICAL PROPERTIES OF THE PRODUCT AS TESTED IN ACCORDANCE WITH THE SCHEME OF TESTING AND INSPECTION CONTAINED IN BIS CERTIFICATION MARKS LICENCE NO. CM/L-7945703 ARE AS INDICATED ABOVE AGAINST EACH ORDER NO.
PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

Note :
1) Test Certificate confirms to EN 10204 : 2004 Type 3.1
2) Process Route : SLAB (BOF-LHF-RH-CCM-Fully Killed(Al&Si Killed))-Hot Rolling.
3) Supply Condition : Furnace Normalized
4) Mechanical Properties are certified at Room Temperature unless specified.
5) Ultrasonic Test are satisfactory as per : EN10160 S2 E3
6) Dimensions are satisfactory as per EN10029:2010 Class B,Table - 1,2,3
7) Surface condition as per EN10163-2 Class B,Subclass-3,
8) Weight calculation for plates is as per Theoretical Calculation

Legend : YS : Yield Strength, UTS :Ultimate Tensile Strength, EL : % Elongation, RA : Reduction in Area, Thk : Thickness, NDTT: Nil Ductility Transition Test, Min : Minimum, Max : Maximum, NA: Not Applicable, S: Simulated Post-weld Heat Treatment Test,Sat : Satisfactory,WBBT-Weld bead bend test YS*=t≤16-355, 16<t≤40-345, 40<t≤63=335,63<t≤80=325, CE= 0.47 for t>30 mm**

DEEP Forgings India Private Limited QA/QC

(Quality Assurance & Control Dept)

AUTHORISED SIGNATORY

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