MILL TEST CERTIFICATE

JSW Steel Limited

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

Anjar Works

IS- 2062 CM/L- 7945703

TEST CERTIFICATE NO. : JSW/PCMD/717483580
DATE : 30.12.2024

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 : S355J0+N / E350B0
UT STD. : EN10160 S2 E3
Impact Temp.(°C) : 0

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**	---	---	---	---	---	---	---	---	---	---	---	---
						Max	---	**630**	---	---	---	**630**	---	---		---			---	---	---	---	---	---	---	---	---	---	---	---	---
1	24LP0374A1	B035295	34.80	2692	14151	10.407	429	574	29	---	408	556	27	---	---	47	42	62	50	---	---	---	---	---	---	---	---	---	---	---
2	24LP0375A1	A035072	34.80	2692	14151	10.407	421	555	29	---	425	550	29	---	---	292	320	267	293	---	---	---	---	---	---	---	---	---	---	---
3	24LP0492A1	A035268	14.40	2982	11539	3.890	416	560	27	---	423	563	26	---	OK	207	211	210	209	---	---	---	---	---	---	---	---	---	---	---
4	24LP0492A2	A035268	14.40	2982	11539	3.890	416	560	27	---	423	563	26	---	OK	207	211	210	209	---	---	---	---	---	---	---	---	---	---	---
5	24LP0885A2	A035270	12.80	2981	11539	3.456	417	558	28	---	423	559	27	---	OK	172	121	175	156	---	---	---	---	---	---	---	---	---	---	---
6	24LP0892A1	B035276	15.20	2982	12725	4.528	405	572	26	---	411	574	25	---	OK	166	176	121	154	---	---	---	---	---	---	---	---	---	---	---
7	24LP0892A2	B035276	15.20	2982	12725	4.528	405	572	26	---	411	574	25	---	OK	166	176	121	154	---	---	---	---	---	---	---	---	---	---	---

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	**0.200**	**1.600**	**0.030**	**0.030**	**0.550**	---	---	**0.550**	---	---	---	---	---	**0.0120**	---	---	**0.250**	---	---	---	**0.45**	---
	B035295	0.152	1.410	0.003	0.017	0.192	0.015	0.007	0.011	0.021	0.004	0.026	0.000	0.049	0.0060	0.0010	0.0000	0.051	0.018	0.033	8.17	0.39	0.23
	A035072	0.162	1.360	0.003	0.018	0.196	0.024	0.009	0.011	0.022	0.002	0.027	0.001	0.045	0.0050	0.0010	0.0000	0.051	0.020	0.045	9.00	0.40	0.24
	A035268	0.153	1.360	0.002	0.018	0.213	0.024	0.008	0.014	0.022	0.002	0.026	0.001	0.036	0.0060	0.0010	0.0000	0.050	0.022	0.047	6.00	0.39	0.23
	A035268	0.153	1.360	0.002	0.018	0.213	0.024	0.008	0.014	0.022	0.002	0.026	0.001	0.036	0.0060	0.0010	0.0000	0.050	0.022	0.047	6.00	0.39	0.23
	A035270	0.170	1.355	0.002	0.018	0.204	0.021	0.007	0.010	0.022	0.002	0.027	0.001	0.050	0.0050	0.0010	0.0000	0.051	0.017	0.039	10.00	0.40	0.25
	B035276	0.155	1.410	0.002	0.017	0.230	0.019	0.008	0.016	0.019	0.005	0.025	0.001	0.049	0.0060	0.0010	0.0000	0.049	0.024	0.044	8.17	0.40	0.24
	B035276	0.155	1.410	0.002	0.017	0.230	0.019	0.008	0.016	0.019	0.005	0.025	0.001	0.049	0.0060	0.0010	0.0000	0.049	0.024	0.044	8.17	0.40	0.24

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	**0.200**	**1.600**	**0.030**	**0.030**	**0.550**	---	---	**0.550**	---	---	---	---	---	**0.0120**	---	---	**0.250**	---	---	---	**0.45**	---
	B035295	0.149	1.396	0.003	0.017	0.189	0.015	0.007	0.011	0.021	0.004	0.026	0.000	0.048	0.0059	0.0010	0.0000	0.051	0.018	0.033	8.14	0.39	0.23
	A035072	0.159	1.348	0.003	0.018	0.192	0.024	0.009	0.011	0.022	0.002	0.027	0.001	0.044	0.0049	0.0010	0.0002	0.051	0.020	0.045	8.98	0.39	0.24
	A035268	0.150	1.346	0.002	0.018	0.209	0.024	0.008	0.014	0.022	0.002	0.026	0.001	0.035	0.0059	0.0010	0.0001	0.050	0.022	0.047	5.93	0.38	0.23
	A035268	0.150	1.346	0.002	0.018	0.209	0.024	0.008	0.014	0.022	0.002	0.026	0.001	0.035	0.0059	0.0010	0.0001	0.050	0.022	0.047	5.93	0.38	0.23
	A035270	0.167	1.343	0.002	0.018	0.200	0.021	0.007	0.010	0.022	0.002	0.027	0.001	0.049	0.0049	0.0010	0.0002	0.051	0.017	0.039	10.00	0.40	0.24
	B035276	0.152	1.397	0.002	0.017	0.226	0.019	0.008	0.016	0.019	0.005	0.025	0.001	0.048	0.0059	0.0010	0.0001	0.049	0.024	0.044	8.14	0.39	0.23
	B035276	0.152	1.397	0.002	0.017	0.226	0.019	0.008	0.016	0.019	0.005	0.025	0.001	0.048	0.0059	0.0010	0.0001	0.049	0.024	0.044	8.14	0.39	0.23

SGS WITNESSED REVIEWED SARDAS VORA Date / Signature SGS INDIA PVT. LTD. AHMEDABAD The SGS ... is subject to the ... available at ... SGS ... file 2(d).

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 : Normalized rolled
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**

DEE Forum India Private Limited QA/QC

(Quality Assurance & Control Dept)

AUTHORISED SIGNATORY

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