

## MILL TEST CERTIFICATE

### JSW Steel Limited

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

: EN10160 S2 E3

2

TEST CERTIFICATE NO. : JSW/PCMD/717606739-

DATE : 17.01.2025

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED

**Anjar Works** 

**SPECIFICATION** 

: EN 10025-2 : 2019 / IS 2062 : 2011

UT STD.

Impact Temp.(°C) : -20

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE

: S355J2+N / E350C

Sr.	Plate / Coil	Heat	Thk	Width	Length	Weight					l Propertie se Tensile				Bend	CHAR	PY V-NOTO (Jou		TEST	Grain	2	' - Direc	tion Tes	st				L	ķs
No.	No.	No.	(MM)	(MM)	(MM)	(MT)		1 2							(Transver		Longit	udinal		size (ASTM	(TI	rough <sup>·</sup>	Thickne	ess)		Groove kability		IDT	ш
							YS*	`						se)		_0g			E112)					0.40			~	å	
							(MPa)	(MPa)	5.65√a		(MPa)	(MPa)	5.65√a			1	2	3	AVG	,	1	2	3	AVG					İ
	Sno	cified Regu	iromont			Min	355	490	22		355	490	22		≤25-2T, >25-				27				-	25	-				
	Эре	cilled Requ	Hement			Max		630				630			NA														
	241 24 54 54 4	F985421	48.00	2777	14151	14.807	406	566	27		413	572	26			233	202	196	210		5/1	57	56	56			•		
1	24LP1615A1	F903421	46.00	2///	14151	14.607	400	500	21		413	3/2	20			233	202	150	210		34	37	50	30					

											Chem	nical Com	position (	%)									
HEAT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min						-						-	0.020									
Specified Requirement	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
	F985416	0.162	1.430	0.002	0.015	0.312	0.022	0.239	0.008	0.014	0.002	0.036	0.001	0.033	0.0038	0.0021	0.0003	0.052	0.247	0.270	8.68	0.42	0.25

PRODUCT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min	-						-						0.020		-	-						-
Specified Requirement	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
	F985416	0.160	1.414	0.002	0.015	0.307	0.022	0.235	0.008	0.014	0.002	0.035		0.033	0.0037	0 0021	0.0003	0.051	0.243	0.266	8.92	0.42	0.25
									HAI	RDAS	VASR	A,	LE	KEVIE	TELL	1							I.

Date # 1: ghature: SGS InCIA PYT. LTD.

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENTED IS 2002:2011. IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUI / ALEMS FO 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 available at http://sqs.com/termi EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

(Quality Assurance & Control Dept)



Printed on: : 17.01.2025 Format No.: JSW/QAC/F/48 Rev.00



# MILL TEST CERTIFICATE

### JSW Steel Limited

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

TEST CERTIFICATE NO. : JSW/PCMD/717603408

DATE : 17.01.2025

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED **SPECIFICATION** : EN 10025-2 : 2019 / IS 2062 : 2011 UT STD. : EN10160 S2 E3

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE : S355J2+N / E350C Impact Temp.(°C) : -20

Sr.	Plate / Coil	Heat	Thk	Width	Length	Weight					l Propertie se Tensile				Bend	CHAR	PY V-NOTO (Jou		TEST	Grain	Z	Z - Direc	tion Tes	st		_	ķs
No.	No.	No.	(MM)	(MM)	(MM)	(MT)			1				2		(Transver		Longit	udinal		size (ASTM	(Ti	nrough 1	Thickne	ss)	Groove (	TOY	mar
	1						YS*	UTS	%EL	%RA	YS*	UTS	%EL	%RA	se)					E112)					•	-	å
							(MPa)	(MPa)	5.65√a		(MPa)	(MPa)	5.65√a			1	2	3	AVG	,	1	2	3	AVG			<u> </u>
	Sne.	cified Requ	iromont			Min	355	490	22		355	490	22		≤25-2T, >25-				27					25	 	 	
	Spe	cilleu Kequ	Heilielli					202							NA												
						Max		630		-		630			IVA								-		 	 	
1	24LP1306A1	F985421	48.00	2777	14051	14.703	406	566	27		413	<b>630</b> 572	26			233	202	196	210		54	57	56	56	 	 	

											Chem	nical Com	position (	%)									
HEAT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min			-			-		-				-	0.020									
Specified Requirement	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.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	٧	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min		-											0.020									
Specified Requirement	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	0.004.7	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
									LUBI	DOAS	VASE	A.S	1	MEAIL	TELL	1							

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT FO IS 2062:2011. IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUI / ALEMS FO 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 available at http://sqs.com/termi EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

(Quality Assurance & Control Dept)



Printed on: : 17.01.2025 Format No.: JSW/QAC/F/48 Rev.00



# MILL TEST CERTIFICATE

### **JSW Steel Limited**

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



TEST CERTIFICATE NO. : JSW/PCMD/717483580

DATE : 30.12.2024

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED **SPECIFICATION** : EN 10025-2 : 2019 / IS 2062 : 2011 UT STD. : EN10160 S2 E3

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE : S355J0+N / E350B0 Impact Temp.(°C) : 0

Sr. No.	Plate / Coil	Heat No.	Thk (MM)	Width (MM)	Length (MM)	Weight		1	(		Propertie se Tensile		2		Bend (Transver	CHAR	(Jou		G	rain ize	_	- Direction		-		Y Groove		TTQN	Remarks
			` ′		` .	(/	YS*	UTS	%EL	%RA	YS*	UTS	%EL	%RA	se)		Longit	udinai	,	STM 112)	•	-			Crac	ckability	Test	ž	Ren
							(MPa)	(MPa)	5.65√a		(MPa)	(MPa)	5.65√a			1	2	3	AVG		1	2	3	AVG					
	Spe	cified Requi	rement			Min	355	490	22		355	490	22		≤25-2T, >25-								-						
	•					Max		630				630			NA														
1	24LP0374A1	B035295	34.80	2692	14151	10.407	429	574	29		408	556	27			47	42	62											
2	24LP0375A1	A035072	34.80	2692	14151	10.407	421	555	29		425	550	29			292	320	267	233										
3	24LP0492A1	A035268	14.40	2982	11539	3.890	416	560	27		423	563	26		OK	207	211	210	203										
4	24LP0492A2		14.40	2982	11539	3.890	416	560	27		423	563	26		OK	207	211	210	203										
5	24LP0885A2		12.80	2981	11539	3.456	417	558	28		423	559	27		OK	172	121	175	130										
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										
												Chem	ical Comp	nosition (	2/4)														
HEAT ANAL	LYSIS	Heat No.	С	Mn	S	Р	Si	Cr	Ni	Cu	Ti	V	Nb	Mo	Al	N	Ca	В	Nb+Ti+\	,	Cu+	Ni	Cr	-Mo+Cu+	+Ni	Al/N	CE'	**	Pcm
0	2	Min													0.020						-	-						-	
Specified F	Requirement	Max	0.200	1.600	0.030	0.030	0.550		-	0.550				-		0.0120			0.250			-					0.4	5	
		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		0.01	18		0.033		8.17	0.3	9	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		0.02	20		0.045		9.00	0.4	10	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		0.02	22		0.047		6.00	0.3	9	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		0.02	22		0.047		6.00	0.3	9	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		0.01	17		0.039		10.00	0.4	<b>'</b> 0	0.25
		A035270 B035276	0.170 0.155	1.355 1.410	0.002	0.018 0.017	0.204 0.230	0.021 0.019	0.007 0.008	0.010 0.016	0.022 0.019	0.002 0.005	0.027 0.025	0.001 0.001	0.050 0.049	0.0050 0.0060	0.0010 0.0010	0.0000	0.051 0.049		0.01			0.039 0.044		10.00 8.17	0.4		0.25 0.24
																						24						10	
		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 0.049		0.02	24		0.044		8.17	0.4 0.4	10 10	0.24
PRODUCT	ANALYSIS	B035276 B035276 Heat No.	0.155 0.155 <b>C</b>	1.410	0.002	0.017	0.230	0.019	0.008 0.008	0.016	0.019 0.019 <b>Ti</b>	0.005	0.025 0.025 <b>Nb</b>	0.001	0.049 0.049	0.0060	0.0010	0.0000	0.049 0.049 <b>Nb+Ti+V</b>	<u>'</u>	0.02	24 24	Cr	0.044	+Ni	8.17 8.17	0.4 0.4 <b>CE</b>	10 10 :**	0.24 0.24 Pcm
	ANALYSIS Requirement	B035276 B035276 Heat No. Min	0.155 0.155 <b>C</b>	1.410 1.410 Mn	0.002 0.002 S	0.017 0.017 <b>P</b>	0.230 0.230 Si	0.019 0.019 <b>Cr</b>	0.008 0.008 <b>Ni</b>	0.016 0.016 <b>Cu</b>	0.019 0.019 <b>Ti</b>	0.005 0.005 <b>V</b>	0.025 0.025 <b>Nb</b>	0.001 0.001	0.049 0.049	0.0060 0.0060 <b>N</b>	0.0010 0.0010	0.0000 0.0000 B	0.049 0.049 <b>Nb+Ti+V</b>	′	0.02 0.02 <b>Cu+</b>	24 24 <b>Ni</b>	Cr	0.044 0.044 •Mo+Cu+	+Ni	8.17 8.17	0.4 0.4 CE <sup>2</sup>	10 10 :**	0.24 0.24 Pcm
		B035276 B035276 Heat No. Min Max	0.155 0.155 C  0.200	1.410 1.410 Mn  1.600	0.002 0.002 S  0.030	0.017 0.017 P 0.030	0.230 0.230 Si 0.550	0.019 0.019 Cr	0.008 0.008 Ni	0.016 0.016 Cu  0.550	0.019 0.019 Ti	0.005 0.005 V	0.025 0.025 <b>Nb</b>	0.001 0.001 <b>Mo</b>	0.049 0.049 AI 0.020	0.0060 0.0060 N	0.0010 0.0010 Ca 	0.0000 0.0000 B	0.049 0.049 Nb+Ti+V	<u>'</u>	0.02 0.02 <b>Cu+</b>	24 24 <b>Ni</b> -	Cr-	0.044 0.044 •Mo+Cu+	+Ni	8.17 8.17 Al/N	0.4 0.4 CE <sup>2</sup>	10 10 *** - 15	0.24 0.24 Pcm
		B035276 B035276 Heat No. Min Max B035295	0.155 0.155 C  0.200 0.149	1.410 1.410 Mn  1.600 1.396	0.002 0.002 S  0.030	0.017 0.017 P  0.030 0.017	0.230 0.230 Si 0.550 0.189	0.019 0.019 Cr  0.015	0.008 0.008 Ni 0.007	0.016 0.016 Cu  0.550	0.019 0.019 Ti   0.021	0.005 0.005 V  0.004	0.025 0.025 <b>Nb</b>  0.026	0.001 0.001 <b>Mo</b>   0.008	0.049 0.049 Al 0.020	0.0060 0.0060 N 0.0120 0.0059	0.0010 0.0010 Ca 0.0010	0.0000 0.0000 B 0.0000	0.049 0.049 Nb+Ti+V  0.250 0.051	<u>'</u>	0.02 0.02 Cu+	Ni -	Cr+	0.044 0.044   0.033	+Ni	8.17 8.17 <b>AI/N</b> 8.14	0.4 0.4 CE <sup>-</sup> 0.4 0.3	40 40 *** - 45	0.24 0.24 Pcm  0.23
		B035276 B035276 Heat No. Min Max B035295 A035072	0.155 0.155 C 0.200 0.149 0.159	1.410 1.410 Mn  1.600 1.396 1.348	0.002 0.002 S  0.030 0.003 0.003	0.017 0.017 P 0.030 0.017 0.018	0.230 0.230 Si 0.550 0.189 0.192	0.019 0.019 Cr  0.015 0.024	0.008 0.008 Ni 0.007 0.009	0.016 0.016 Cu  0.550 0.011 0.011	0.019 0.019 Ti 0.021 0.022	0.005 0.005 V  0.004 0.002	0.025 0.025 Nb 0.026 0.027	0.001 0.001 <b>Mo</b>  0.000 0.001	0.049 0.049 Al 0.020 	0.0060 0.0060 N 0.2120 0.0039	0.0010 0.0010 Ca 0.0010 0.0010	0.0000 0.0000 B  0.0000 0.0002	0.049 0.049 Nb+Ti+V  0.250 0.051 0.051	<i>'</i>	0.02 0.02 Cu+  0.01 0.02	Ni -   18 20	Cr	0.044 0.044 	+Ni	8.17 8.17 AI/N 8.14 8.98	0.4 0.4 CE <sup>4</sup> 0.4 0.3 0.3	40 40 *** - <b>45</b> 39	0.24 0.24 Pcm  0.23 0.24
		B035276 B035276 Heat No. Min Max B035295 A035072 A035268	0.155 0.155 C  0.200 0.149 0.159 0.150	1.410 1.410 Mn  1.600 1.396 1.348 1.346	0.002 0.002 S  0.030 0.003 0.003 0.002	0.017 0.017 P 0.030 0.017 0.018 0.018	0.230 0.230 Si 0.550 0.189 0.192 0.209	0.019 0.019 Cr  0.015 0.024 0.024	0.008 0.008 Ni  0.007 0.009 0.008	0.016 0.016 Cu  0.550 0.011 0.011	0.019 0.019 Ti 0.021 0.022 0.022	0.005 0.005 V 0.004 0.002 0.002	0.025 0.025 Nb 0.026 0.027	0.001 0.001 Mo  0.008 0.001	0.049 0.049 Al 0.020  0.044 0.035	0.0060 0.0060 N 0.2122 0.0039 0.0043 0.0059	0.0010 0.0010  Ca 0.0010 0.0010 0.0010 0.0010	0.0000 0.0000 B 0.0000 0.0000 0.0002 0.0001	0.049 0.049 Nb+Ti+V  0.250 0.051 0.055 0.050	/	0.02 0.02 Cu+  0.01 0.02 0.02	Ni	Cr	0.044 0.044 +Mo+Cu+  0.033 0.045 0.047	+Ni	8.17 8.17 AI/N 8.14 8.98 5.93	0.4 0.4 CE* 0.4 0.3 0.3 0.3	10 10 10 15 15 19 39 39	0.24 0.24 Pcm  0.23 0.24 0.23
		B035276 B035276 Heat No. Min Max B035295 A035072 A035268 A035268	0.155 0.155 C 0.200 0.149 0.159 0.150 0.150	1.410 1.410 Mn  1.600 1.396 1.348 1.346 1.346	0.002 0.002 S  0.030 0.003 0.003 0.002 0.002	0.017 0.017 P  0.030 0.017 0.018 0.018 0.018	0.230 0.230 Si 0.550 0.189 0.192 0.209 0.209	0.019 0.019 Cr  0.015 0.024 0.024 0.024	0.008 0.008 Ni 0.007 0.007 0.009 0.008 0.008	0.016 0.016 Cu  0.550 0.011 0.011 0.014	0.019 0.019 Ti 0.021 0.022 0.022 0.022	0.005 0.005 V 0.004 0.002 0.002 0.002	0.025 0.025 Nb 0.026 0.027 0.026 0.026	0.001 0.001 Mo   0.008 0.001 0.001	0.049 0.049 Al 0.020 0.044 0.035 0.035	0.0060 0.0060 N 0.0120 0.0059 0.0059 0.0059	0.0010 0.0010  Ca 0.0010 0.0010 0.0010 0.0010 0.0010	0.0000  B 0.0000  0.0000  0.0002  0.0001	0.049 0.049 Nb+Ti+V  0.250 0.051 0.051 0.050 0.050	<u>/  </u>	0.02 0.02 Cu+  0.01 0.02 0.02	Ni	Cr+	0.044 0.044 	+Ni	8.17 8.17 Al/N 8.14 8.98 5.93 5.93	0.4 0.4 CE <sup>2</sup> 0.4 0.3 0.3 0.3 0.3	40 40 	0.24 0.24 Pcm  0.23 0.24 0.23 0.23
		B035276 B035276 Heat No. Min Max B035295 A035072 A035268 A035268 A035270	0.155 0.155 C 0.200 0.149 0.159 0.150 0.150 0.167	1.410 1.410 Mn 1.600 1.396 1.348 1.346 1.346 1.343	0.002 0.002 S  0.030 0.003 0.003 0.002 0.002 0.002	0.017 0.017 P 0.030 0.017 0.018 0.018 0.018 0.018	0.230 0.230 Si 0.550 0.189 0.192 0.209 0.209 0.200	0.019 0.019 Cr  0.015 0.024 0.024 0.024 0.021	0.008 0.008 Ni  0.007 0.009 0.008 0.008 0.007	0.016 0.016 Cu  0.550 0.011 0.014 0.014 0.010	0.019 0.019 Ti  0.021 0.022 0.022 0.022 0.022	0.005 0.005 V 0.004 0.002 0.002 0.002 0.002	0.025 0.025 Nb 0.026 0.027 0.026 0.026 0.027	0.001  Mo 0.006 0.001 0.001 0.001	0.049 0.049 Al 0.020 0.044 0.035 0.035 0.049	0.0060 0.0060 N 0.0120 0.0059 0.0059 0.0059 0.0049	0.0010 0.0010  Ca 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	0.0000 0.0000 B 0.0000 0.0002 0.0001 0.0001 0.0002	0.049 0.049 0.049 Nb+Ti+V  0.250 0.051 0.051 0.050 0.050 0.051	<u>'</u>	0.02 0.02 Cu+  0.01 0.02 0.02 0.02	Ni	Cr+	0.044 0.044  0.033 0.045 0.047 0.047 0.039	+Ni	8.17 8.17 AI/N 8.14 8.98 5.93 5.93 10.00	0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.4	40 40 40 45 45 39 39 38 38 40	0.24 0.24 Pcm 0.23 0.24 0.23 0.23 0.24
		B035276 B035276 Heat No. Min Max B035295 A035072 A035268 A035268	0.155 0.155 C 0.200 0.149 0.159 0.150 0.150	1.410 1.410 Mn  1.600 1.396 1.348 1.346 1.346	0.002 0.002 S  0.030 0.003 0.003 0.002 0.002	0.017 0.017 P  0.030 0.017 0.018 0.018 0.018	0.230 0.230 Si 0.550 0.189 0.192 0.209 0.209	0.019 0.019 Cr  0.015 0.024 0.024 0.024	0.008 0.008 Ni 0.007 0.007 0.009 0.008 0.008	0.016 0.016 Cu 0.550 0.011 0.011 0.014 0.010 0.016	0.019 0.019 Ti 0.021 0.022 0.022 0.022	0.005 0.005 V 0.004 0.002 0.002 0.002 0.002 0.002	0.025 0.025 Nb 0.026 0.027 0.026 0.026 0.027 0.026 0.027	0.001 0.001 Mo  0.006 0.001 0.001 0.001 0.001	0.049 0.049 0.020 	0.0060 0.0060 N 0.0120 0.0059 0.0059 0.0059	0.0010 0.0010  Ca 0.0010 0.0010 0.0010 0.0010 0.0010	0.0000  B 0.0000  0.0000  0.0002  0.0001	0.049 0.049 Nb+Ti+V  0.250 0.051 0.051 0.050 0.050	<u>'  </u>	0.02 0.02 Cu+  0.01 0.02 0.02	Ni	Cr+	0.044 0.044 	+Ni	8.17 8.17 Al/N 8.14 8.98 5.93 5.93	0.4 0.4 CE <sup>2</sup> 0.4 0.3 0.3 0.3 0.3	40 40 	0.24 0.24 Pcm  0.23 0.24 0.23 0.23

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT TO IS 2002:2011, Subject to the pro-IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT FO 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 available at http://sgs.com/terms EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

Printed on: : 30.12.2024

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

(Quality Assurance & Control Dept)



Format No.: JSW/QAC/F/48 Rev.00



## MILL TEST CERTIFICATE

### **JSW Steel Limited**

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



TEST CERTIFICATE NO. : JSW/PCMD/717479971

DATE : 30.12.2024

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED **SPECIFICATION** : EN 10025-2 : 2019 / IS 2062 : 2011 UT STD. : EN10160 S2 E3

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE : S355J0+N / E350B0 Impact Temp.(°C) : 0

Sr.	Plate / Coil	Heat	Thk	Width	Length	Weight					l Propertie se Tensile				Bend	CHAR		CH IMPACT Iles)	TEST	Grain	Z	' - Direc	tion Te	st			L	ķs
No.	No.	No.	(MM)	(MM)	(MM)	(MT)		1				2	2		(Transver		Longi	tudinal		size (ASTM	(Ti	rough 1	Thickne	ess)		Y Groove kability T	ㅁ	ma i
							YS*	UTS	%EL	%RA	YS*	UTS	%EL	%RA	se)					E112)					1		~	8
							(MPa)	(MPa)	5.65√a		(MPa)	(MPa)	5.65√a			1	2	3	AVG	•	1	2	3	AVG				<u> </u>
	Snor	cified Requi	iromont			Min	355	490	22		355	490	22	-	≤25-2T, >25-				27		-		-				 	-
	Оре	cilied itequ	il Gillelit			Max		630				630		-	NA								-				 	-
1	24LP0594A1	E983636	33.60	2980	14051	11.044	394	533	29		422	551	26			315	302	283	300								 	
2	24LP0632A1	A036588	21.50	2980	14151	7.117	434	537	31		428	531	32		OK	224	194	199	206								 	
3	24LP0753A1	B036315	22.00	2980	14051	7.231	403	541	30		396	517	28		OK	371	340	336	349								 	
4	24LP0754A1	B036315	22.00	2980	14051	7.231	403	541	30		396	517	28		OK	371	340	336	349								 	
5	24LP1459A1	B036313	24.50	2980	14151	8.110	403	534	29		400	543	23		ОК	388	413	364	388								 	

											Chen	nical Com	position (	%)									
HEAT ANALYSIS	Heat No.	С	Mn	S	Р	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min		-											0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550	-		0.550				-		0.0120			0.250				0.45	
	E983636	0.160	1.400	0.003	0.015	0.204	0.030	0.009	0.006	0.014	0.002	0.025	0.001	0.031	0.0042	0.0024	0.0004	0.041	0.015	0.046	7.38	0.40	0.24
	A036588	0.156	1.370	0.004	0.018	0.183	0.014	0.005	0.010	0.017	0.005	0.027	0.001	0.045	0.0070	0.0020	0.0000	0.049	0.015	0.030	6.43	0.39	0.23
	B036315	0.164	1.350	0.001	0.015	0.186	0.022	0.007	0.010	0.017	0.005	0.026	0.001	0.045	0.0050	0.0010	0.0000	0.048	0.017	0.040	9.00	0.40	0.24
	B036315	0.164	1.350	0.001	0.015	0.186	0.022	0.007	0.010	0.017	0.005	0.026	0.001	0.045	0.0050	0.0010	0.0000	0.048	0.017	0.040	9.00	0.40	0.24
	B036313	0.157	1.370	0.001	0.015	0.204	0.019	0.008	0.012	0.021	0.005	0.026	0.001	0.050	0.0050	0.0010	0.0000	0.052	0.020	0.040	10.00	0.39	0.23

PRODUCT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min			-										0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550		-	0.550						0.0120			0.250				0.45	
	E983636	0.158	1.386	0.003	0.015	0.202	0.030	0.009	0.006	0.014	0.002	0.025	0.001	V-0.031	0.0042	0.0024	0.0004	0.041	0.015	0.046	7.38	0.40	0.24
	A036588	0.159	1.377	0.004	0.018	0.187	0.014	0.005	0.010	0.017	0.005	0.028	0.001	0.046	0.007	0 0020	0.0002	0.050	0.015	0.030	6.48	0.39	0.24
	B036315	0.161	1.338	0.001	0.015	0.183	0.022	0.007	0.010	0.0175	V0.005R	<b>1</b> 0.026	0.001	0.044	0.0049	0 0010	0.0002	0.048	0.017	0.040	8.98	0.39	0.24
	B036315	0.161	1.338	0.001	0.015	0.183	0.022	0.007	0.010	0.017	0.005	0.026	0.001	0.044	0.0049	0 0010	0.0002	0.048	0.017	0.040	8.98	0.39	0.24
	B036313	0.160	1.377	0.001	0.015	0.208	0.019	0.008	0.012	0.021	0.005	0.027	0.001	0:051	0.0051	0 0010	0.0001	0.053	0.020	0.040	10.00	0.40	0.24
													2100	-									

Date # 1: ghature:

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT TO IS 2002:2011, Subject to the pro-IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUI / ALEMT FO 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 available at http://sgs.com/terms EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

(Quality Assurance & Control Dept)



Printed on: : 30.12.2024 Format No.: JSW/QAC/F/48 Rev.00



# MILL TEST CERTIFICATE

### JSW Steel Limited

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



TEST CERTIFICATE NO. : JSW/PCMD/717470789

DATE : 29.12.2024

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED **SPECIFICATION** : EN 10025-2 : 2019 / IS 2062 : 2011 UT STD. : EN10160 S2 E3

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE : S355J0+N / E350B0 Impact Temp.(°C) : 0

Sr.	Plate / Coil	Heat	Thk	Width	Length	Weight					Propertie se Tensile				Bend	CHAR		CH IMPACT ules)	TEST	Grain	Z	Z - Direc	tion Tes	st	,			_	ķs
No.	No.	No.	(MM)	(MM)	(MM)	(MT)	YS*	IITE 1	WEL	%RA	YS*	UTS	2 0/EI	%RA	(Transver se)		Longi	tudinal		size (ASTM	(TI	rough <sup>-</sup>	Thickne	ss)		Groove Kability		TON	emai
							(MPa)	(MPa)	5.65√a	70KA	(MPa)	(MPa)	%EL 5.65√a	70KA	55,	1	2	3	AVG	E112)	1	2	3	AVG					~
	Sno	cified Requi	iromont			Min	355	490	22		355	490	22		≤25-2T, >25-				27		-								
	Эре-	cilled Requi	irennent			Max		630				630			NA						-						-	-	
1	24LP0593A1	B035052	33.00	2980	14051	10.847	431	539	30		446	548	29			350	315	339	335										
2	24LP0923A1	A036646	25.60	2980	14051	8.415	425	550	29		416	542	30			224	216	200	213										
3	24LP0944A1	B036326	24.50	2980	14151	8.110	422	537	28		412	552	28		OK	419	389	373	394										
4	24LP0996A1	A036646	24.90	2980	14051	8.185	425	550	29		416	542	30		ОК	224	216	200	213										
_	24LP1294B1	A035275	17.50	2980	14051	5.752	443	555	28		427	541	30		OK	271	318	295	295										

											Chem	ical Com	position (	%)									
HEAT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	Al/N	CE**	Pcm
Specified Requirement	Min	-	-				-					-		0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550	-	-	0.550			-			0.0120			0.250				0.45	
	B035052	0.158	1.350	0.004	0.016	0.195	0.028	0.043	0.015	0.016	0.002	0.026	0.001	0.050	0.0050	0.0010	0.0000	0.044	0.058	0.087	10.00	0.39	0.24
	A036646	0.164	1.370	0.001	0.015	0.195	0.028	0.007	0.014	0.018	0.005	0.025	0.001	0.050	0.0060	0.0010	0.0000	0.048	0.021	0.050	8.33	0.40	0.24
	B036326	0.155	1.370	0.002	0.012	0.188	0.020	0.008	0.011	0.019	0.005	0.026	0.001	0.047	0.0050	0.0010	0.0000	0.050	0.019	0.040	9.40	0.39	0.23
	A036646	0.164	1.370	0.001	0.015	0.195	0.028	0.007	0.014	0.018	0.005	0.025	0.001	0.050	0.0060	0.0010	0.0000	0.048	0.021	0.050	8.33	0.40	0.24
	A035275	0.161	1.365	0.002	0.018	0.204	0.015	0.007	0.011	0.021	0.004	0.026	0.001	0.048	0.0060	0.0020	0.0000	0.051	0.018	0.034	8.00	0.39	0.24

PRODUCT ANALYSIS	Heat No.	С	Mn	S	Р	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min													0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550			0.550					-	0.0120			0.250				0.45	
	B035052	0.156	1.335	0.004	0.016	0.192	0.028	0.042	0.015	0.016	0.002	0.026	0.001	V-0.049	0.0049	0.0010	0.0000	0.044	0.057	0.086	10.00	0.39	0.23
	A036646	0.162	1.355	0.001	0.015	0.192	0.028	0.007	0.014	0.018	0.005	0.025	0.001	0.049	0.0059	0 0010	0.0000	0.048	0.021	0.050	8.31	0.40	0.24
	B036326	0.158	1.377	0.002	0.012	0.192	0.020	0.008	0.011	R 0.0195	V0.005 R	0.027	0.001	0.048	0.0051	0 0010	0.0002	0.051	0.019	0.040	9.41	0.39	0.24
	A036646	0.162	1.355	0.001	0.015	0.192	0.028	0.007	0.014	0.018	0.005	0.025	0,001	0.049	0.0059	0 0010	0.0000	0.048	0.021	0.050	8.31	0.40	0.24
	A035275	0.158	1.351	0.002	0.018	0.200	0.015	0.007	0.011	0.021	0.004	0.026	0.001	0:047	0.0059	0 0020	0.0000	0.051	0.018	0.034	7.97	0.39	0.23
									Date	E 5 gha	ture:	1.	4100			1							

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT TO IS 2002:2011, Subject to the pro-IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUI / ALEMT FO 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 available at http://sgs.com/terms EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

(Quality Assurance & Control Dept)



Printed on: : 29.12.2024 Format No.: JSW/QAC/F/48 Rev.00



# MILL TEST CERTIFICATE

### **JSW Steel Limited**

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



TEST CERTIFICATE NO. : JSW/PCMD/717472719

DATE : 29.12.2024

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED **SPECIFICATION** : EN 10025-2 : 2019 / IS 2062 : 2011 UT STD. : EN10160 S2 E3

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE : S355J0+N / E350B0 Impact Temp.(°C) : 0

Sr.	Plate / Coil	Heat	Thk	Width	Length	Weight					l Propertie se Tensile				Bend	CHAR		CH IMPACT ules)	TEST	Grain	2	' - Direc	tion Te	st				_	ks
No.	No.	No.	(MM)	(MM)	(MM)	(MT)		1				2	?		(Transver		Longi	tudinal		size (ASTM	(Ti	rough 1	Thickne	ess)		Y Groove kability	-	Ģ	nar.
							YS*	UTS	%EL	%RA	YS*	UTS	%EL	%RA	se)					E112)					1	•			8
							(MPa)	(MPa)	5.65√a		(MPa)	(MPa)	5.65√a			1	2	3	AVG	,	1	2	3	AVG	<u> </u>			<u> </u>	
	Specified Requirement					Min	355	490	22		355	490	22		≤25-2T, >25-				27		-	-	-						
	Specified Requirement					Max		630				630			NA														
1	24LP0366A1	B035370	33.00	2980	14051	10.847	430	535	27		422	531	28			281	266	243	263										
2	24LP0522A1	A034379	17.50	2980	14051	5.752	396	511	29		397	514	31		OK	194	228	221	214										
3	24LP0543A1	B036311	21.50	2980	14151	7.117	409	536	24		426	552	28		OK	342	327	348	339										
4	24LP0685A1	A036351	24.50	2980	14051	8.053	413	548	24		423	548	27		OK	247	223	265	245										
5	24LP0693A1	A036588	24.50	2980	14151	8.110	434	537	31		428	531	32		OK	224	194	199	206										

											Chem	nical Com	position (	%)									
HEAT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min													0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550	-	-	0.550					-	0.0120	-		0.250		-		0.45	
	B035370	0.135	1.430	0.003	0.015	0.208	0.022	0.011	0.011	0.026	0.003	0.034	0.001	0.055	0.0050	0.0020	0.0000	0.063	0.022	0.045	11.00	0.38	0.22
	A034379	0.147	1.360	0.004	0.011	0.182	0.016	0.005	0.009	0.017	0.004	0.026	0.001	0.042	0.0050	0.0020	0.0000	0.047	0.014	0.031	8.40	0.38	0.22
	B036311	0.162	1.370	0.001	0.017	0.197	0.028	0.011	0.020	0.021	0.005	0.026	0.001	0.050	0.0060	0.0010	0.0000	0.052	0.031	0.060	8.33	0.40	0.24
	A036351	0.160	1.360	0.003	0.012	0.194	0.020	0.007	0.010	0.020	0.005	0.025	0.001	0.044	0.0050	0.0010	0.0000	0.050	0.017	0.038	8.80	0.39	0.24
	A036588	0.156	1.370	0.004	0.018	0.183	0.014	0.005	0.010	0.017	0.005	0.027	0.001	0.045	0.0070	0.0020	0.0000	0.049	0.015	0.030	6.43	0.39	0.23

PRODUCT ANALYSIS	Heat No.	С	Mn	S	Р	Si	Cr	Ni	Cu	Ti	V	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Considered Descripement	Min													0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550			0.550					-	0.0120	7		0.250				0.45	
	B035370	0.134	1.416	0.003	0.015	0.206	0.022	0.011	0.011	0.026	0.003	0.034	0.001	VV0.054	0.0049	0.0020	0.0000	0.063	0.022	0.045	11.02	0.38	0.21
	A034379	0.150	1.367	0.004	0.011	0.186	0.016	0.005	0.009	0.017	0.004	0.027	0.001	0.043	0.005	0 0020	0.0000	0.048	0.014	0.031	8.43	0.38	0.23
	B036311	0.159	1.358	0.001	0.017	0.193	0.027	0.011	0.020	R 0.0215	V0.005	0.026	0.001	0.049	0.0059	0 0010	0.0001	0.052	0.031	0.059	8.31	0.39	0.24
	A036351	0.157	1.348	0.003	0.012	0.191	0.020	0.007	0.010	0.020	0.005	0.025	0,001	0.043	0.0049	0 0010	0.0001	0.050	0.017	0.038	8.78	0.39	0.23
	A036588	0.159	1.377	0.004	0.018	0.187	0.014	0.005	0.010	0.017	0.005	0.028	0.001	0.046	0.0071	0 0020	0.0002	0.050	0.015	0.030	6.48	0.39	0.24
									Date	E 5 gba	ture:	15	4100			1							

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT TO IS 2002:2011, Subject to the pro-IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUI / ALEMT FO 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 available at http://sgs.com/terms EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

(Quality Assurance & Control Dept)



Printed on: : 29.12.2024 Format No.: JSW/QAC/F/48 Rev.00



# MILL TEST CERTIFICATE

### JSW Steel Limited

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



TEST CERTIFICATE NO. : JSW/PCMD/717485008

DATE : 30.12.2024

CUSTOMER : MOUNTING RENEWABLE POWER LIMITED **SPECIFICATION** : EN 10025-2 : 2019 / IS 2062 : 2011 UT STD. : EN10160 S2 E3

P. O. NO. : MRPL STEEL 2024 IN P Date - 24.10.2024 GRADE : S355J0+N / E350B0 Impact Temp.(°C) : 0

Sr.	Plate / Coil	Heat	Thk	Width	Length	Weight					Propertie se Tensile				Bend	CHAR		CH IMPACT ules)	TEST	Grain	Z	Z - Direc	tion Tes	st	,			_	ķs
No.	No.	No.	(MM)	(MM)	(MM)	(MT)						2	2		(Transver		Long	itudinal		size (ASTM	(Ti	rough 1	Thickne	ss)		′ Groove kability ∃		Ā	E E
							YS* UTS %EL %RA YS* UTS %EL %RA (MPa) (MPa) 5.65va (MPa) 5.65va						se)		3			E112)									8		
							(MPa)	(MPa)	5.65√a		(MPa)	(MPa)	5.65√a			1	2	3	AVG	ĺ	1	2	3	AVG					Ш.
	Sner	cified Pegui	iromont			Min	355	490	22	-	355	490	22		≤25-2T, >25-				27		-				-		-		
	Specified Requirement				Max		630		-	-	630			NA					-	1	-	-		-		-			
1	24LP0383A1	B035276	32.50	2980	14051	10.683	399	554	27		405	572	26			236	241	259	245										
2	24LP0631A1	A036588	21.50	2980	14151	7.117	434	537	31		428	531	32		OK	224	194	199	206										
3	24LP0650B1	B035105	15.20	2982	12725	4.528	434	569	27		423	562	22		OK	208	233	257	233										
4	24LP0696B1	B035065	17.00	2421	14048	4.539	422	549	25		407	551	26		OK	217	220	168	202										
5	24LP0737A1	A036646	25.60	2980	14051	8.415	425	550	29		416	542	30			224	216	200	213										
6	24LP0817B1	A035215	15.60	2982	13436	4.907	451	569	28		436	567	27		OK	156	142	129	142										

											Chem	nical Com	position (	%)									
HEAT ANALYSIS	Heat No.	С	Mn	S	P	Si	Cr	Ni	Cu	Ti	٧	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min						-					-		0.020									
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550			0.550						0.0120			0.250				0.45	
	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
	A036588	0.156	1.370	0.004	0.018	0.183	0.014	0.005	0.010	0.017	0.005	0.027	0.001	0.045	0.0070	0.0020	0.0000	0.049	0.015	0.030	6.43	0.39	0.23
	B035105	0.157	1.350	0.003	0.018	0.201	0.030	0.009	0.010	0.018	0.005	0.030	0.004	0.050	0.0060	0.0010	0.0000	0.053	0.019	0.053	8.33	0.39	0.23
	B035065	0.150	1.370	0.004	0.018	0.189	0.029	0.014	0.009	0.022	0.002	0.028	0.006	0.050	0.0060	0.0010	0.0000	0.052	0.023	0.058	8.33	0.39	0.23
	A036646	0.164	1.370	0.001	0.015	0.195	0.028	0.007	0.014	0.018	0.005	0.025	0.001	0.050	0.0060	0.0010	0.0000	0.048	0.021	0.050	8.33	0.40	0.24
	A035215	0.156	1.366	0.002	0.018	0.203	0.018	0.007	0.008	0.020	0.004	0.026	0.001	0.045	0.0060	0.0010	0.0000	0.050	0.015	0.034	7.50	0.39	0.23

PRODUCT ANALYSIS	Heat No.	C	Mn	S	P	Si	Cr	Ni	Cu	Ti	٧	Nb	Мо	Al	N	Ca	В	Nb+Ti+V	Cu+Ni	Cr+Mo+Cu+Ni	AI/N	CE**	Pcm
Specified Requirement	Min						-		-					0.020									-
Specified Requirement	Max	0.200	1.600	0.030	0.030	0.550	-		0.550					-	0.0120			0.250				0.45	
	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	V-0.048	0.0059	0.0010	0.0001	0.049	0.024	0.044	8.14	0.39	0.23
	A036588	0.159	1.377	0.004	0.018	0.187	0.014	0.005	0.01.0	0.017	0.005	0.028	0.001	0.046	0.007	0 0020	0.0002	0.050	0.015	0.030	6.48	0.39	0.24
	B035105	0.154	1.337	0.003	0.018	0.197	0.029	0.009	0.010	R 0.0185	V0.005 R	0.029	0.004	0.049	0.0059	0 0010	0.0000	0.052	0.019	0.052	8.31	0.39	0.23
	B035065	0.147	1.358	0.004	0.018	0.186	0.028	0.014	0.009	0.022	0.002	0.027	0,006	0.049	0.0059	0 0010	0.0001	0.051	0.023	0.057	8.31	0.38	0.22
	A036646	0.162	1.355	0.001	0.015	0.192	0.028	0.007	0.014	0.018	0.005	0.025	0.001	0.049	0.0059	0 0010	0.0000	0.048	0.021	0.050	8.31	0.40	0.24
	A035215	0.160	1.373	0.002	0.018	0.208	0.018	0.007	0.008	0.020	0.004	0.027	0.001	0.046	0.0061	0 0010	0.0002	0.051	0.015	0.034	7.54	0.39	0.24
									Dette		DUT	orn i	LUMED.	AFAB		- 1							

IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT TO IS 2002:2011, Subject to the pro-IT IS CERTIFIED THAT THE MATERIAL DESCRIBED ABOVE FULLY CONFIRM TO EN 10025-2:2019 & EQUIVALENT FO 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 available at http://sgs.com/terms EACH ORDER NO.

PLAESE REFER TO EN 10025-2:2019 & IS 2062:2011 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

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

(Quality Assurance & Control Dept)



**AUTHORISED SIGNATORY** 

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