



TEST CERTIFICATE AS PER EN 10204 TYPE 3.1

Customer : Jindal Steel & Power Ltd.	Cert.No : DMI/TC/22-23/581
PO No : PO/JSPL/890/22-23 DT: 07/Apr/2022	Date : 07-Apr-2022
Specification : ASTM A815 S32750 ED: 2021	TPI :
Dimension : ASME B16.9 ED: 2013	Invoice : SI/JSPL/890/22-23

SrNo	HT/LT No	Item Description	Qty Nos	H/T Condition	Cooling Media	Temp. C
12	PS-1155	Duplex, SMLS BW, BE, Elbow 45 LR, ASTM A815 S32750, ASME B16.9, 1 1/2" NB x Sch 40/STD	120	Soln. Annealed	Water Quenched	1060
13	PS-1156	Duplex, SMLS BW, BE, Elbow 45 LR, ASTM A815 S32750, ASME B16.9, 1 1/4" NB x Sch 160	220	Soln. Annealed	Water Quenched	1060
14	PS-1157	Duplex, SMLS BW, BE, Elbow 45 LR, ASTM A815 S32750, ASME B16.9, 2" NB x Sch 160	350	Soln. Annealed	Water Quenched	1060
15	PS-1157	Duplex, SMLS BW, BE, Elbow 45 LR, ASTM A815 S32750, ASME B16.9, 2" NB x Sch 40/STD	400	Soln. Annealed	Water Quenched	1060

CHEMICAL COMPOSITION (%)

HT/LT No	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N	PREN
	0.03- Max	0.8- Max	1.2- Max	0.035- Max	0.02- Max	24- 26	6- 8	3- 5	0.5- Max	0.24- 0.32	
PS-1155	0.025	0.657	1.074	0.031	0.016	24.452	7.157	3.690	0.431	0.282	41.141
PS-1156	0.021	0.705	0.845	0.032	0.015	25.786	7.107	4.034	0.448	0.286	43.674
PS-1157	0.023	0.623	0.872	0.029	0.017	24.926	7.170	4.226	0.390	0.287	43.464


MECHANICAL PROPERTIES

HT/LT No	Tensile			Hardness
	U.T.S Mpa	Y.S Mpa	Elongation %	HB
	800-965	550-Min	15-Min	310-Max
PS-1155	850	650	16	254,255
PS-1156	850	672	16	260,262
PS-1157	860	693	19	262,265

Remarks :

We hereby certify that Items was Manufactured, Sample Tested & Inspected with Specification as per PO & was found to meet the requirements.

1. 100 % Visual Inspection - OK
2. 100 % Dimensions Checked - OK
3. 100% PMI Performed - OK
4. IGC Test performed as per ASTM A262 Practice E and found Satisfactory

IDENTIFICATION : LOGO	SIGNATURE / INSPECTION AUTHORITY / SURVEYOR	 For Phedora Solutions Manager - QC
MARKING : Item / Specn / Size / Sch / Ht-Lt No.		



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CHEMICAL COMPOSITION (%)

HT/LT No	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N	PREN	V	Nb	Co
	0.03-Max	0.8-Max	1.2-Max	0.035-Max	0.02-Max	24-26	6-8	3-5	0.5-Max	0.24-0.32				
PS-1155	0.025	0.657	1.074	0.031	0.016	24.452	7.157	3.690	0.431	0.282	41.141	-	-	-
PS-1156	0.021	0.705	0.845	0.032	0.015	25.786	7.107	4.034	0.448	0.286	43.674	-	-	-
PS-1157	0.023	0.623	0.872	0.029	0.017	24.926	7.170	4.226	0.390	0.287	43.464	-	-	-

MECHANICAL PROPERTIES

HT/LT No	Tensile				Hardness	Impact Test		
	U.T.S Mpa	Y.S Mpa	Elongation %	Red. Area %	HB	Ind. (Joule)	Avg (Joule)	Temp. C
	800-965	550-Min	15-Min	-	310-Max	-	-	-
PS-1155	850	650	16	-	254,255	-	-	-
PS-1156	850	672	16	-	260,262	-	-	-
PS-1157	860	693	19	-	262,265	-	-	-

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IDENTIFICATION :
LOGO

SIGNATURE /INSPECTION AUTHORITY / SURVEYOR

MARKING :
Item / Specn / Size / Sch / Ht-Lt No.



Phedora Solutions

Manager - QC