

Order No. : 01S3829535

PO No. : 01S3829535

Supplier : HANWHA CORPORATION

Commodity : PLATE

Customer : DUFERCO S.A.

Spec & Type : EN10025-2 S355J2+N

QY 170-20. UT-07
 GR 44762 (36)
ONIRAM, LDA
 DEP. QUALIDADE
 RECEPÇÃO

DATA: 2020/10/07
 RUBRICA: [Signature]

Size	Product No.	Quantity	Weight (kg)	Heat No.	Position	Tensile Test			Impact Test	Division	Chemical Composition																
						YP (MPa)	TS (%)	EL (%)	V Notch -20°C Energy (Joule)		C (%)	Si (%)	Mn (%)	P (%)	S (%)	Cr (%)	Ni (%)	B (ppm)	Cu (%)	Mo (%)	N (ppm)	Nb (%)	Ti (%)	V (%)			
20x2500x12000	PP33224101-4104	4	18,840	SU36129	T	441	543	29	1: 270	L	0.1516	0.343	1.392	0.0076	0.0022	0.013	0.008	3	0.013	0.002	28	0.024	0.0143	0.001			
									2: 296		P	0.1487	0.342	1.392	0.0086	0.0021	0.015	0.007	2	0.011	0.002	32	0.024	0.0134	0.002		
20x2500x12000	PP33224002-4004	3	14,130	SU36130	T	439	539	29	3: 270	L	0.1552	0.338	1.390	0.0090	0.0023	0.015	0.007	2	0.014	0.001	24	0.022	0.0129	0.002			
									A: 279		P	0.1559	0.337	1.390	0.0089	0.0022	0.016	0.007	2	0.012	0.001	29	0.022	0.0127	0.002		
*** Sub Total (290) ***		10	47,100 (kg)											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
*** Heat Treatment ==> Normalizing rolling ***																											
25x2000x8000	PP33250901-0908	8	25,112	SU36138	T	423	532	29	1: 272	L	0.1520	0.335	1.411	0.0083	0.0019	0.015	0.007	3	0.012	0.002	32	0.025	0.0127	0.002			
									2: 272		P	0.1473	0.324	1.408	0.0080	0.0019	0.015	0.009	1	0.012	0.001	29	0.025	0.0134	0.001		
*** Sub Total (300) ***		8	25,112 (kg)											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
*** Heat Treatment ==> Normalizing rolling ***																											
25x2500x12000	PP32917603-7604	2	11,772	SU35739	T	418	538	28	1: 273	L	0.1504	0.343	1.377	0.0127	0.0017	0.024	0.014	3	0.029	0.002	41	0.024	0.0121	0.002			
									2: 280		P	0.1485	0.334	1.352	0.0112	0.0019	0.022	0.011	3	0.022	0.001	38	0.023	0.0122	0.002		
25x2500x12000	PP33223801-3804	4	23,544	SU36130	T	424	531	31	3: 278	L	0.1552	0.338	1.390	0.0090	0.0023	0.015	0.007	2	0.014	0.001	24	0.022	0.0129	0.002			
									A: 277		P	0.1559	0.337	1.390	0.0089	0.0022	0.016	0.007	2	0.012	0.001	29	0.022	0.0127	0.002		
														A: 281													

- * Position - T : Top, M : Middle, B : Bottom
- * Tensile Test. Direction : Transversal, Gauge Length : 5.65 √A. (Rectangular), YP Method : Upper Point
- * Impact Test. Direction : Surface Longitudinal, Full-Size : 10mmX10mm
- * Division - L : Ladle Analysis, P : Products Analysis
- * Supply Condition : As-Rolled unless otherwise Heat Treated.

We hereby certify that the material herein has been made in accordance with the order and above specification. This material has been fully killed and made by basic oxygen process. This material is fine grained steel. This material has been made by vacuum degassing process. No repair welding was performed to the products. Test Certificate is issued according to EN10204 3.1. Melted and Manufactured in Republic of Korea

TAF - Produtos e Inspeções, S.A.
 Depto. Qualidade

Legal sanction can be imposed on forging. Improper use of product can cause safety issues.

CE 0038/CPR/MUM/1210003/1 Surveyor To :

Ko Jae Gon

Order No. : 01S3829535

PO No. : 01S3829535

Supplier : HANWHA CORPORATION

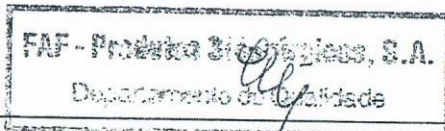
Commodity : PLATE

Customer : DUFERCO S.A.

Spec & Type : EN10025-2 S355J2+N

Product No.	Division	Sol-Al		CEQ		
		(%)	(%)			
PP33224101-4104	L	0.029	0.39			
	P	0.027				
PP33224002-4004	L	0.030	0.39			
	P	0.027				
*** Sub Total (290) **				10	47,100 (kg)	
$CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5$						
PP33250901-0908	L	0.032	0.39			
	P	0.032				
*** Sub Total (300) **				8	25,112 (kg)	
$CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5$						
PP32917603-7604	L	0.031	0.39			
	P	0.029				
PP33223801-3804	L	0.030	0.39			
	P	0.027				

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