

Order No. : 01S3829535

PO No. : 01S3829535

Supplier : HANWHA CORPORATION

Commodity : PLATE

Customer : DUFERCO S.A.

Spec & Type : EN10025-2 S355J2+N

UT: 20.10.0745
GR 45092(60)
ONIRAM, LDA
DEP. QUALIDADE
RECEPCÃO

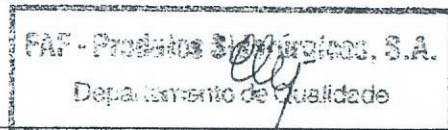
DATA
20.10.18

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 (%)
25x2500x12000	PP33223901-3904	4	23,544	SU36130	T	413	529	31	1: 267 2: 267 3: 276 A: 270	L P	0.1552 0.1559	0.338 0.337	1.390 1.390	0.0090 0.0089	0.0023 0.0022	0.015 0.016	0.007 0.007	2 2	0.014 0.012	0.001 0.001	24 29	0.022 0.022	0.0129 0.0127	0.002 0.002
*** Sub Total (310) ***		10	58,860 (kg)																					
*** Heat Treatment ==> Normalizing rolling ***											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
30x2000x12000	PP33225401	1	5,652	SU36130	T	399	536	30	1: 241 2: 233 3: 243 A: 239	L P	0.1552 0.1559	0.338 0.337	1.390 1.390	0.0090 0.0089	0.0023 0.0022	0.015 0.016	0.007 0.007	2 2	0.014 0.012	0.001 0.001	24 29	0.022 0.022	0.0129 0.0127	0.002 0.002
30x2000x12000	PP33282701-2704	4	22,608	SU36131	T	422	537	29	1: 252 2: 230 3: 246 A: 243	L P	0.1503 0.1510	0.354 0.348	1.392 1.380	0.0084 0.0089	0.0018 0.0019	0.016 0.015	0.006 0.007	1 2	0.013 0.012	0.004 0.003	28 28	0.025 0.024	0.0113 0.0117	0.002 0.002
*** Sub Total (320) ***		5	28,260 (kg)																					
*** Heat Treatment ==> Normalizing rolling ***											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
30x2500x8000	PP33225301-5304	4	18,840	SU35855	T	414	544	27	1: 260 2: 268 3: 264 A: 264	L P	0.1525 0.1529	0.344 0.346	1.396 1.400	0.0088 0.0101	0.0030 0.0017	0.018 0.018	0.010 0.009	3 1	0.028 0.019	0.002 0.002	42 33	0.025 0.024	0.0135 0.0124	0.002 0.002
30x2500x8000	PP33378801-8803	3	14,130	SU35855	T	414	544	27	1: 268 2: 270 3: 255 A: 264	L P	0.1525 0.1529	0.344 0.346	1.396 1.400	0.0088 0.0101	0.0030 0.0017	0.018 0.018	0.010 0.009	3 1	0.028 0.019	0.002 0.002	42 33	0.025 0.024	0.0135 0.0124	0.002 0.002

* Position - T : Top, M : Middle, B : Bottom
 * Tensile Test. Direction : Transversal, Gauge Length : 5.65 √A₀ (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



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

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PO No. : 01S3829535

Supplier : HANWHA CORPORATION

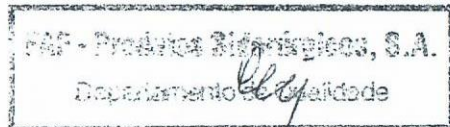
Commodity : PLATE

Customer : DUFERCO S.A.

Spec & Type : EN10025-2 S355J2+N

Product No.	Division	Sol-Al		CEQ		
		(%)	(%)			
PP33223901-3904	L	0.030	0.39			
	P	0.027				
*** Sub Total (310) ***				10	58,860 (kg)	
						CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5
PP33225401	L	0.030	0.39			
	P	0.027				
PP33282701-2704	L	0.031	0.39			
	P	0.031				
*** Sub Total (320) ***				5	28,260 (kg)	
						CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5
PP33225301-5304	L	0.031	0.39			
	P	0.025				
PP33378801-8803	L	0.031	0.39			
	P	0.025				

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