

Order No. : 01S3829535

PO No. : 01S3829535

Supplier : HANWHA CORPORATION

Commodity : PLATE

Customer : DUFERCO S.A.

Spec & Type : EN10025-2 S355J2+N

Q7 170-2007-07  
GIZ 66762(36)  
**ONIRAM, LDA**  
DEP. QUALIDADE  
RECEPÇÃO

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 (%)			
60x2500x12000	PP33420301	1	14,130	SU36171	T	336	516	32	1: 166	L	0.1555	0.355	1.412	0.0098	0.0013	0.016	0.006	1	0.012	0.002	36	0.024	0.0127	0.002			
									2: 155		P	0.1494	0.343	1.361	0.0113	0.0018	0.019	0.010	1	0.031	0.002	30	0.022	0.0128	0.002		
60x2500x12000	PP33420401	1	14,130	SU36171	T	336	516	32	3: 172	L	0.1555	0.355	1.412	0.0098	0.0013	0.016	0.006	1	0.012	0.002	36	0.024	0.0127	0.002			
									A: 164		P	0.1494	0.343	1.361	0.0113	0.0018	0.019	0.010	1	0.031	0.002	30	0.022	0.0128	0.002		
60x2500x12000	PP34492001	1	14,130	SU36333	T	381	530	31	1: 240	L	0.1598	0.353	1.374	0.0147	0.0020	0.015	0.006	4	0.012	0.001	43	0.024	0.0132	0.002			
									2: 229		P	0.1570	0.349	1.382	0.0142	0.0021	0.014	0.007	1	0.012	0.002	38	0.023	0.0132	0.002		
*** Sub Total (420) ***		3	42,390 (kg)											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
*** Heat Treatment ==> Normalizing rolling ***																											
65x2500x8000	PP33373702	1	10,204	SU36343	T	354	517	32	1: 183	L	0.1479	0.349	1.383	0.0103	0.0024	0.016	0.009	2	0.022	0.001	28	0.025	0.0129	0.002			
									2: 167		P	0.1488	0.348	1.387	0.0101	0.0025	0.015	0.010	1	0.021	0.001	25	0.025	0.0128	0.002		
*** Sub Total (430) ***		1	10,204 (kg)											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
*** Heat Treatment ==> Normalizing rolling ***																											
70x2500x6000	PP33415001-5003	3	24,726	SU35844	T	361	521	32	1: 211	L	0.1505	0.344	1.403	0.0097	0.0021	0.018	0.005	1	0.012	0.002	30	0.023	0.0116	0.003			
									2: 225		P	0.1459	0.338	1.393	0.0106	0.0025	0.015	0.006	3	0.012	0.002	26	0.023	0.0113	0.002		
									3: 206																		
									A: 214																		

\* Position - T : Top, M : Middle, B : Bottom  
 \* Tensile Test. Direction : 1/4T Transversal, Gauge Length : 5.65 √A<sub>0</sub> (Round), 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.

POSCO - Produtos Especializados, S.A.  
 Departamento de Qualidade

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

Order No. : 01S3829535

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Supplier : HANWHA CORPORATION

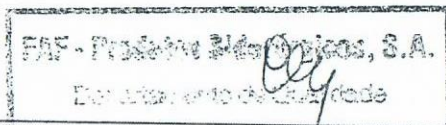
Commodity : PLATE

Customer : DUFERCO S.A.

Spec &amp; Type : EN10025-2 S355J2+N

Product No.	Division	Sol-Al		CEQ	
		(%)	(%)		
PP33420301	L	0.029	0.40		
	P	0.030			
PP33420401	L	0.029	0.40		
	P	0.030			
PP34492001	L	0.031	0.39		
	P	0.032			
*** Sub Total (420) ***				3	42,390 (kg)
$CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5$					
PP33373702	L	0.030	0.38		
	P	0.030			
*** Sub Total (430) ***				1	10,204 (kg)
$CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5$					
PP33415001-5003	L	0.025	0.39		
	P	0.027			

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