

Order No. : 01S3829535

PO No. : 01S3829535

Supplier : HANWHA CORPORATION

Commodity : PLATE

Customer : DUFERCO S.A.

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

UT 20.L.00566  
GR 44921 (S2)  
**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 (%)		
12x3000x12000	PP32146603	1	3,391	SU34326	T	445	583	28	1: 76	L	0.1542	0.333	1.380	0.0113	0.0028	0.018	0.007	5	0.013	0.003	28	0.024	0.0122	0.003		
									2: 109		P	0.1564	0.338	1.369	0.0111	0.0025	0.018	0.007	3	0.012	0.002	25	0.023	0.0123	0.002	
12x3000x12000	PP33033401-3402	2	6,782	SU35139	T	441	567	28	1: 155	L	0.1555	0.348	1.384	0.0123	0.0020	0.018	0.008	3	0.011	0.002	40	0.024	0.0142	0.002		
									2: 75		P	0.1533	0.362	1.373	0.0121	0.0015	0.017	0.008	2	0.011	0.002	30	0.023	0.0139	0.002	
12x3000x12000	PP33091701-1704	4	13,564	SU35739	T	435	560	26	1: 229	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: 222		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	
12x3000x12000	PP33243101	1	3,391	SU36130	T	480	575	28	1: 205	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		
									2: 214		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 (190) ***		8	27,128 (kg)																							
*** Heat Treatment ==> Normalizing rolling ***											CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5															
15x1500x6000	PP33427701-7716	16	16,960	SU35878	T	431	564	29	1: 173	L	0.1525	0.332	1.383	0.0139	0.0020	0.014	0.008	3	0.014	0.002	35	0.027	0.0117	0.002		
									2: 170		P	0.1558	0.338	1.382	0.0143	0.0020	0.015	0.008	3	0.014	0.002	32	0.026	0.0115	0.002	
15x1500x6000	PP33281102-1109	8	8,480	SU36130	T	438	566	27	1: 112	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		
									2: 44		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	

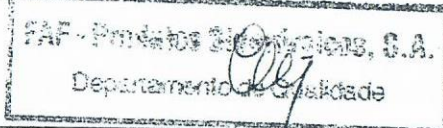
\* Position - T : Top, M : Middle, B : Bottom

\* 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

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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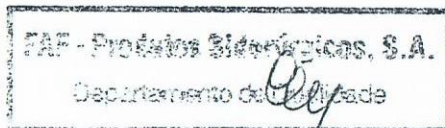
Commodity : PLATE

Customer : DUFERCO S.A.

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

Product No.	Division	SoI-Al	CEQ
		(%)	(%)
PP32146603	L	0.032	0.39
	P	0.034	
PP33033401-3402	L	0.029	0.39
	P	0.030	
PP33091701-1704	L	0.031	0.39
	P	0.029	
PP33243101	L	0.030	0.39
	P	0.027	
*** Sub Total (190) **			8 27,128 (kg)
PP33427701-7716	L	0.031	0.39
	P	0.031	
PP33281102-1109	L	0.030	0.39
	P	0.027	

$$CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5$$



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