CERTIFIED MATERIAL REPORT

CMR No. : LL3011331325 Date of Issue 2010/12/30

Customer	M.BINDT TRADING		
Trade Name	S-316L.16N	Size	3.2 mm * 350 mm
Lot No.	06911	Purchaser's Order No.	-
Applicable Specification	AWS A5.4 E316L-16 Equivalent to EN 1600 E 19 12 3 L R	* According to EN10204 3.1 : 2004	

Welding Current	AC	Shielding Gas	-	Post Weld Heat Treatment (℃ × hr.)	AS WELDED

Mechanical Properties	Tensile Test			Impact Test (CVN - Joule)				
	YS (N/㎟)	TS (N/㎟)	EL (%)	Temp.(℃)	X1	X2	X3	Avg.
	-	588	39.8					
Spec.	-	≥482	≥30					

Chemical Composition (%)

	C	Si	Mn	P	S	Cu	Ni	Cr	Mo		
(Weld Metal)	0.02	0.56	0.84	0.028	0.014	0.15	11.90	18.73	2.74		
Spec.	≤0.04	≤1.00	0.5 ~2.5	≤0.04	≤0.03	≤0.75	11.0 ~14.0	17.0 ~20.0	2.0 ~3.0		

Others

*CONTRACT NO.:10590
20MT

We hereby certifies that the material covered by this report has been inspected in accordance with and been found to meet the applicable requirements of specification and customer's requirements.

ORIGINAL

Approved by

Sang Hee Lee

QA Manager Lee, S. H.

HYUNDAI WELDING CO., LTD.

Head Office 157-37, Samsung-dong, Gangnam-gu, Seoul, Republic of Korea
Pohang Plant 90-5, Jangheung-dong, Nam-gu, Pohang-si, Republic of Korea