

# CERTIFIED MATERIAL REPORT

CMR No. : 1401133500081

Date of Issue : 2014-01-13

Customer	Hyundai Corporation Europe GmbH		
Trade Name	S-316L.16N	Size	4.0mm*350mm
Lot No.	36808	Purchaser's Order No.	-
Applicable Specification	AWS A5.4 E316L-16 EN ISO 3581-A E 19 12 3 L R		

Welding Current	AC	Shielding Gas	-	Post Weld Heat Treatment ( x hr.)	AS WELDED			
Mechanical Properties	Tensile Test			Impact Test (CVN - Joule)				
	YS(MPa)	TS(MPa)	EL(%)	Temp. ( )	X1	X2	X3	Avg.
	-	562	43.6		-	-	-	-
Spec.	-	482	30	-				

**Chemical Composition (%)**

	C	Si	Mn	P	S	Cu	Ni	Cr	Mo		
(Weld Metal)	0.02	0.83	0.80	0.028	0.013	0.24	11.86	18.43	2.54		
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**

\* According to EN 10204-2004 : 3.1(Chemical), 2.2(Mechanical)

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.

Approved by



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