

CERTIFIED MATERIAL REPORT

CMR No. : 1411053500012

Date of Issue : 2014-11-05

Customer	M.BINDT TRADING		
Trade Name	S-309MoL.16	Size	4.0mm*350mm
Lot No.	35501	Purchaser's Order No.	-
Applicable Specification	AWS A5.4 E309LMo-16 EN ISO 3581-A E 23 12 2 L R		

Welding Current	AC	Shielding Gas	-	Post Weld Heat Treatment (°C × hr.)	AS WELDED			
Mechanical Properties	Tensile Test			Impact Test (CVN - Joule)				
	YS(MPa)	TS(MPa)	EL(%)	Temp.(°C)	X1	X2	X3	Avg.
	523	671	32.0		-	-	-	-
Spec.	-	≥520	≥30	-				

Chemical Composition (%)

	C	Si	Mn	P	S	Cu	Ni	Cr	Mo		
(Weld Metal)	0.03	0.71	1.25	0.020	0.010	0.04	12.23	23.10	2.50		
Spec.	≤0.04	≤1.00	0.5 ~2.5	≤0.04	≤0.03	≤0.75	12.0 ~14.0	22.0 ~25.0	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

Sang Hoo Lee

QA Manager Lee, S. H.



HYUNDAI WELDING CO., LTD.

Head Office #507, Teheran-ro, Gangnam-gu, Seoul, Republic of Korea

Pohang Plant #100, Daesong-ro, Nam-gu, Pohang, Republic of Korea