

# CERTIFIED MATERIAL REPORT

CMR No. : OG0411352362

Date of Issue 2013/07/04

Customer	M.BINDT TRADING		
Trade Name	S-310.16	Size	2.6 mm * 300 mm
Lot No.	31505	Purchaser's Order No.	-
Applicable Specification	AWS A5.4 E310-16		

Welding Current	AC	Shielding Gas	-	Post Weld Heat Treatment (°C x hr.)	AS WELDED
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Mechanical Properties	Tensile Test			Impact Test (CVN - Joule)				
	YS (MPa)	TS (MPa)	EL (%)	Temp.(°C)	X1	X2	X3	Avg.
	-	629	31.4					
Spec.	-	≥550	≥30					

Chemical Composition (%)												
( Weld Metal )	C	Si	Mn	P	S	Cu	Ni	Cr	Mo			
		0.14	0.56	1.97	0.025	0.007	0.04	20.10	27.80	0.08		
	Spec.	0.08 ~0.20	≤0.75	1.0 ~2.5	≤0.03	≤0.03	≤0.75	20.0 ~22.5	25.0 ~28.0	≤0.75		

Others

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

\*CONTRACT NO.: 10917  
20,119kg

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 Hee Lee*  
QA Manager Lee, S. H.



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