

# CERTIFIED MATERIAL REPORT

CMR No. : OF1311352302

Date of Issue 2013/06/13

Customer	M.BINDT TRADING		
Trade Name	SM-70EN eco	Size	1.2 mm * 15 kg
Lot No.	8431164	Purchaser's Order No.	-
Applicable Specification	AWS A5.18 ER70S-6 EN ISO 14341-A G4Si1 <span style="float: right;">* According to EN10204 3.1 : 2004</span>		

Welding Current	DCEP	Shielding Gas	ISO 14175 M21	Post Weld Heat Treatment (°C × 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.
	429	542	28.0	-40	90	84	82	85
Spec.	≥400	≥482	≥22	-				

Chemical Composition (%)

	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V
( WIRE )	0.08	0.99	1.80	0.020	0.016	0.21	0.03	0.05	0.01	0.01
Spec.	0.06 ~0.15	0.80 ~1.15	1.40 ~1.85	≤0.025	≤0.035	≤0.50	≤0.15	≤0.15	≤0.15	≤0.03

Others

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*

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