

# CERTIFIED MATERIAL REPORT

CMR No. : OJ1111352306

Date of Issue 2013/10/11

Customer	M.BINDT TRADING		
Trade Name	SM-70 eco	Size	1.2 mm * 15 kg
Lot No.	532998	Purchaser's Order No.	-
Applicable Specification	AWS A5.18 ER70S-6 EN ISO 14341-A G3Si1 <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.
	427	547	28.0	-40	103	98	105	102
Spec.	≥400	≥482	≥22	-				

Chemical Composition (%)

	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V
( WIRE )	0.07	0.88	1.52	0.011	0.012	0.21	0.03	0.03	0.01	0.02
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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