

CERTIFIED MATERIAL REPORT

CMR No. : 1701243700054

Date of Issue : 2017-01-24

Customer			
Trade Name	SC-70T Cored	Size	1.2mm*5kg
Lot No.	20003836AA7AG2	Purchaser's Order No.	-
Specification	AWS A5.36 E70T15-M21A2-CS1 EN ISO 17632-A T 46 2 M M 1		

Welding Current	DCEP	Shielding Gas	80%Ar+20%CO ₂	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.
	511	593	28.6	-30	64	63	66	64
AWS Spec.	≥ 400	490~660	≥ 22	≥ 27				

Chemical Composition (%)											
(Weld Metal)	C	Si	Mn	P	S	Ni	Cr	Mo	V	Cu	
	0.06	0.64	1.46	0.008	0.007	0.02	0.02	0.01	0.01	0.02	
	AWS Spec.	≤ 0.12	≤ 0.90	≤ 1.75	≤ 0.030	≤ 0.030	≤ 0.50	≤ 0.20	≤ 0.30	≤ 0.08	≤ 0.35

*Hydrogen Content(ml/100g) (AWS A4.3) : 4.72

Others

We hereby certify 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

K.W. Park
QA Manager Park K. W.



HYUNDAI WELDING CO., LTD.

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CERTIFIED MATERIAL REPORT

CMR No. : 1706013700071

Date of Issue : 2017-06-01

Customer	M.BINDT TRADING		
Trade Name	SC-71LHM Cored	Size	1.2mm*5kg
Lot No.	MF7412	Purchaser's Order No.	-
Specification	AWS A5.36 E71T1-M21A2-CS1 * According to EN 10204-2004 : 3.1 EN ISO 17632-A T 46 3 P M 1		

Welding Current	DCEP	Shielding Gas	80%Ar+20%CO ₂	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.
	545	606	28.2	-30	53	50	54	52
AWS Spec.	≥ 400	490~660	≥ 22	≥ 27				

Chemical Composition (%)

	C	Si	Mn	P	S	Ni	Cr	Mo	V	Cu	
(Weld Metal)	0.05	0.44	1.16	0.011	0.010	0.04	0.05	0.01	0.01	0.03	
AWS Spec.	≤ 0.12	≤ 0.90	≤ 1.75	≤ 0.030	≤ 0.030	≤ 0.50	≤ 0.20	≤ 0.30	≤ 0.08	≤ 0.35	

Others

We hereby certify 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

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QA Manager Park K. W.



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