

CERTIFIED MATERIAL REPORT

CMR No. : 1712113700006

Date of Issue : 2017-12-11

Customer	A-LEAF		
Trade Name	Superflux 800T X M-12K	Size	10 X 48 Mesh
Lot No.	2021127	Purchaser's Order No.	-
Specification	AWS A5.17 F7A8 X EM12K EN ISO 14174 S A FB 1 (Superflux 800T) * According to EN 10204-2004 : 3.1		

Welding Current	AC	Shielding Gas	-		Post Weld Heat Treatment (x hr.)			AS WELDED	
Mechanical Properties		Tensile Test			Impact Test (CVN - Joule)				
		YS(MPa)	TS(MPa)	EL(%)	Temp.()	X1	X2	X3	Avg.
		576	629	30.4	-60	118	121	124	121
AWS Spec.		400	480 660	22	27				

Chemical Composition (%)

	C	Si	Mn	P	S	Cu					
(WIRE)	0.09	0.15	1.14	0.017	0.008	0.09					
AWS Spec.	0.05 0.15	0.10 0.35	0.80 1.25	0.030	0.030	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

K.W. Park

QA Manager Park K. W.



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