

SR-182

AWS A5.11/ ASME SFA5.11 ENiCrFe-3

HYUNDAI WELDING CO., LTD.



❖ Specification

AWS A5.11/ ASME SFA5.11 ERNiCrFe-3
JIS Z3224 ENiCrFe-3
EN ISO 14172 Ni 6182

❖ Applications

- Inconel 600 + 601
- Dissimilar welding of stainless steels and low-alloyed steel & Nickel-alloyed steel
- Ni-Cr-Fe alloyed clad steel

❖ Characteristics

- Excellent crack resistibility due to high portion of Mn
- Excellent Arc & slag stability
- Better productivity(anti-heat feature)

❖ Shielding

-

❖ Current

AC/DC+

❖ Packing

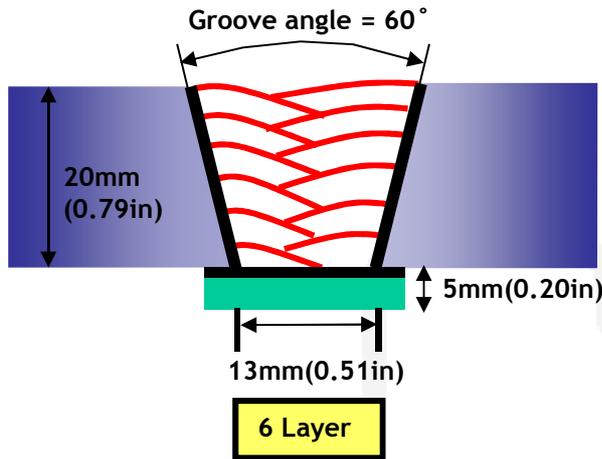
SR-182	Size mm(in)		3.2(1/8)	4.0(5/32)
	Length mm(in)		350(14)	350(14)
	Current(A)	F	90~130	130~160
		V-up /OH	80~110	110~150



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions

Method by AWS Spec.



- Diameter(mm) : 3.2mm (1/8)
- Polarity : AC
- Amp./ Volt. : 100/25
- Interpass Temp. °C (°F) : 150°C (302°F)
- Travel Speed (Cm/min) : 130~180
- Position : 1G

❖ Chemical Analysis of All weld metal(wt%)

C	Si	Mn	P	S	Ni	Cr	Ti	Nb+Ta	Fe	Other*
0.060	0.45	6.22	0.011	0.010	72.98	16.30	0.07	1.79	5.16	-
≤0.10	≤1.0	5.0 ~9.5	≤0.030	≤0.015	≥59.0	13.0 ~17.0	≤1.0	1.0 ~2.5	≤10.0	≤0.50
AWS A5.11 ERNiCrFe-3										

* Other Elements Total shall include Pb, Sn, Zn

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.

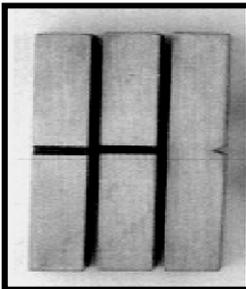


Mechanical Properties & Chemical Composition of All Weld Metal

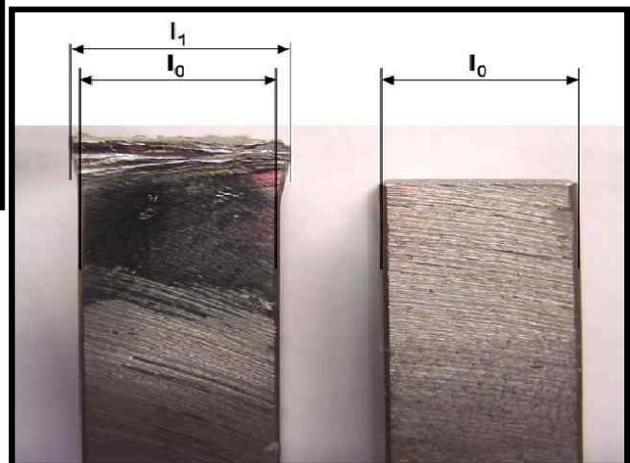
❖ Mechanical Properties of All weld metal

Tensile Test Results.		
T.S MPa (ksi)	EL. (%)	
640(93)	40	
AWS A5.11 ENiCrFe-3	≥550(80)	≥30.0

Charpy V-Notch Impact Value, Joules(ft·lbs)							
°C(°F)	X1	X2	X3	X4	X5	X6	Avg.
0(32)	97(72)	99(73)	100(74)	104(77)	102(75)	98(72)	100(74)
-196(320)	74(55)	75(55)	80(59)	78(58)	77(59)	74(55)	76(56)
Lateral expansion, mm(in)							
°C(°F)	X1		X2		X3		
-196(320)	0.87(0.034)		1.02(0.040)		0.91(0.036)		



Lateral expansion = $l_1 - l_0$



This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.



Mechanical Properties & Chemical Composition of All Weld Metal

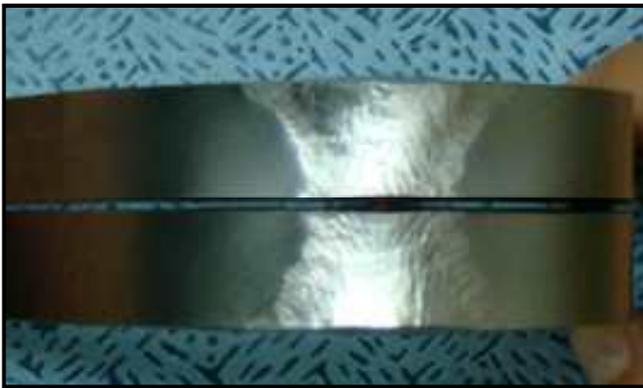
❖ Bending Test(AC)



Root

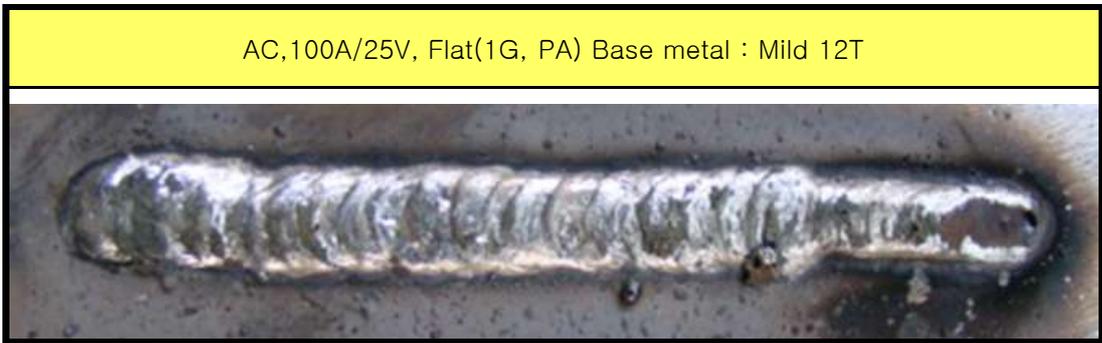


Face



Side

❖ Bead Appearance



This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.