

S-7014.F

COVERED ARC WELDING ELECTRODE
FOR HIGH EFFICIENT WELDING



❖ Specification

AWS A5.1	E7014
JIS	-
EN ISO 2560-A	E42 0 R 1 2

❖ Applications

This electrode is suitable for all types of carbon steel fabrications, particularly in horizontal fillet welding of sheet metal and ornamental iron work.

❖ Characteristics on Usage

S-7014.F is an iron powder electrode for high speed all position welding. As the contact welding can be performed with this electrode, manipulation of electrodes is easy in horizontal fillet or in the groove.

❖ Note on Usage

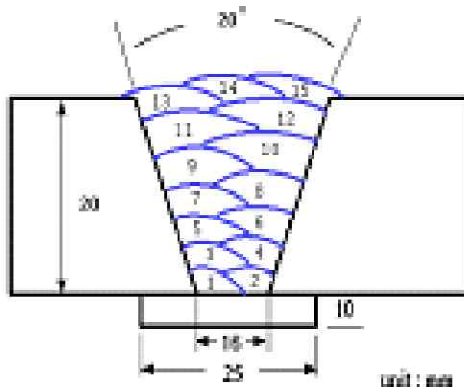
1. Dry the electrodes at 70-100°C (158~212°F) for 30-60 minutes before use.
2. Pay attention not to exceed the range of proper currents.



Mechanical Properties & Chemical Compositions of All Weld Metal

❖ **Welding Conditions**

Method by AWS Spec.



[Joint Preparation & Layer Details]

- Diameter, mm(in) : 4.0 X 400(5/32 X 16)
- Amp./ Volt. : 170 / 23~24
- Interpass Temp. °C(°F) : 80~130 (176~266)
- Polarity : AC

❖ **Mechanical Property of All Weld Metal**

Consumable	Tensile test			CVN Impact Value J (ft.lbs)
	YS MPa (ksi)	TS MPa (ksi)	EL (%)	0°C (32°F)
S-7014.F	449(65)	510(74)	30.0	83(61)
AWS A5.1	≥ 400(58)	≥ 490(71)	≥ 17	≥ 27 (20)

❖ **Chemical Composition of All Weld Metal(wt%)**

Consumable	Chemical Composition (%)				
	C	Si	Mn	P	S
S-7014.F	0.07	0.30	0.66	0.022	0.015
AWS Spec	≤ 0.15	≤ 0.90	≤ 1.25	≤ 0.035	≤ 0.035

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.



Weldability

❖ **Weldability**

Division		Items	Checked	Remarks
Arc		Start arc	Excellent	•Welding conditions H-Fillet
		Stability	Good	
		Concentricity	Excellent	
Slag		Fluidity	Good t	
		Detachability	Excellent	
		Bead appearance	Excellent	
		Melting rate	Good	
		Heat resistance	Good	
		The others	Good	

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Size Available and recommended Current & Approval

❖ Sizes Available and Recommended Current

Diameter mm(in)		3.2 (1/8)	4.0 (5/32)	5.0 (3/16)	6.0 (15/64)
Length mm(in)		400 (16)	400 (16)	400 (16)	450 (18)
Recommended current range (AC or DC+ Amp.)	Flat & H-Fillet position	95 ~140	140 ~200	180 ~250	240 ~310

❖ Authorized Approval Details

Classification	Dia. mm(in)	Welding position	Grade					
			KR	ABS	LR	BV	DNV GL	NK
E7014	3.2(1/8) ~ 5.0(3/16)	All	2, 2Y	2Y	2, 2Y	2, 2Y	2	KMW5 2
	6.0(15/64)	F, H-Fil						

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