

S-6010.D

COVERED ARC WELDING ELECTRODE
FOR WELDING BUILDINGS AND PIPES

2023.01

HYUNDAI WELDING CO., LTD.



❖ Specification

AWS A5.1	E6010
JIS Z 3211	E4310
EN ISO 2560-A	E38 0 C 2 1

❖ Applications

Welding of thin steel sheets and pipes and cast steel repairs.

❖ Characteristics on Usage

S-6010.D is a high cellulose type electrode for welding with direct current. As the welding in poor groove fit up and vertical downward welding can be performed easily, it is suitable for all position welding can be performed easily it is suitable for all position welding of pipes.

S-6010.D exhibits a deep penetration and fast freezing.

❖ Note on Usage

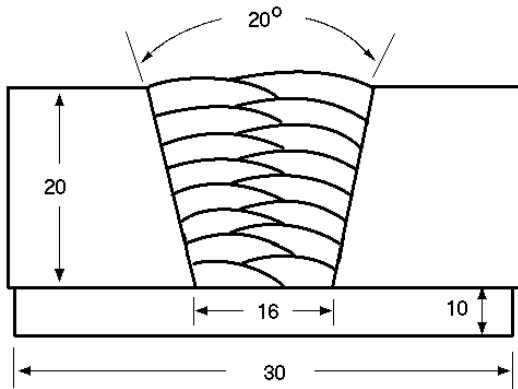
1. Pay attention not to exceed the recommended currents.
2. As this electrode is prone to absorb moisture, store it with care.



Mechanical Properties & Chemical Compositions of All Weld Metal

❖ **Welding Conditions**

Method by AWS Spec.



[Joint Preparation & Layer Details]

- Diameter : 4.0 X 350mm(5/32 X 12in)
- Amp./ Volt. : 140 / 22~23
- Interpass Temp. : 80~130°C (176~266°F)
- Polarity : DC+

❖ **Mechanical Property of All Weld Metal**

consumable	Tensile test			CVN Impact Value J (ft.lbs)
	YS MPa (lbs/in ²)	TS MPa (lbs/in ²)	EL (%)	-30°C (-22°F)
S-6010.D	470(68,000)	550(80,000)	32.3	52(38)
AWS Spec.	≥ 330(48,000)	≥ 430(62,000)	≥ 22	≥ 27(20)

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

Consumable	Chemical Composition (%)				
	C	Si	Mn	P	S
S-6010.D	0.16	0.32	0.72	0.015	0.017
AWS Spec.	≤0.20	≤1.00	≤1.20	N.S	N.S

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
& Crater Crack Test**

❖ **Weldability**

Item	Division	Flat position	Vertical position
	Arc stability		Excellent
Melting rate		Excellent	Excellent
Deposition rate		Excellent	Good
Resistance of spatter occurrence		Excellent	Good
Bead appearance		Good	Good
Slag detachability		Excellent	Excellent
The others		Good	Good

❖ **Results of Crater Crack Test**

Test plate	Plate thickness mm(in)	Fillet design (mm)	Welding conditions		
			Amp.(A)	Volt.(V)	Result
ASTM A36	9(0.35)		140	22~23	No crater crack

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Size Available and recommended Current & Approval

❖ Sizes Available and Recommended Currents

Diameter mm(in)		2.6 (3/32)	3.2 (1/8)	4.0 (5/32)	5.0 (3/16)
Length mm(in)		300 (12)	350 (14)	350 (14)	350 (14)
Recommended current range (DC+ Amp.)	Flat (1G-PA)	50 ~75	70 ~110	110 ~155	155 ~200
	3G (PF) & 4G,5G (PE)	40 ~70	55 ~105	90 ~140	120 ~180

❖ Authorized Approval Details

Classification	Dia. mm(in)	Welding position	Grade						
			KR	ABS	LR	BV	DNV GL	NK	CWB
AWS									
E6010	2.6(3/32) ~ 5.0(3/16)	All	RMW2	2	2	2	2	KMW2	E4310

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