

SM-110

AWS A5.28/ ASME SFA-5.28 ER110S-G

2022.04



❖ Specification

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❖ Applications

SM-110 is a 0.35Cr-1.9Ni-0.55Mo alloyed, solid wire for the GMAW of high strength steels with low-temperature impact toughness requirements.

❖ Features

1. Flow rate of shielding gas is 25ℓ/min. approximately.
2. Use the wind-screen against wind.

❖ Shielding gas

Ar+CO₂ (M21)

❖ Polarity

GMAW : DC+

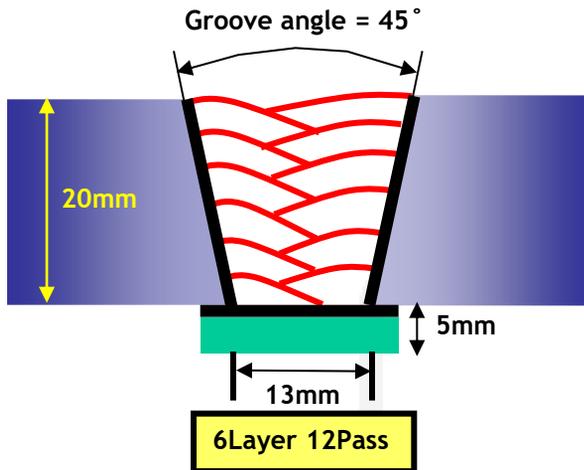
❖ Packaging

SM-110 (GMAW)	Size(mm)	1.0	1.2	1.4	1.6
	Weight	Spool : 15kg			



Chemical Composition & Mechanical Properties of All Weld Metal

❖ Welding Conditions



- Diameter(mm) : 1.2mm (0.045in)
- Shielding gas : 80%Ar+20%CO₂
- Flow rate(ℓ /min.) : 20~25
- Amp.(A)/Volt.(V) : 300/27
- Stick-Out(mm) : 20
- Traveling speed(cpm) : 30

❖ Chemical Composition (Wt%)

ITEM	C	Si	Mn	P	S	Ni	Cr	Mo
Wire	0.089	0.80	1.90	0.010	0.004	1.95	0.34	0.58
Weld metal	0.058	0.60	1.49	0.007	0.004	1.68	0.29	0.48

❖ Shielding gas: 80%Ar + 20%CO₂

Brand Name	Tensile Test Results.		
	YS MPa(ksi)	TS MPa(ksi)	EL(%)
SM-110	640	810 (117.5)	21.6
AWS A5.28 ER110S-G	-	≥760	-

Brand Name	Charpy V-Notch Impact Value Joule (ft . lbs)				
		X1	X2	X3	Avg.
SM-110	-20℃ (-4°F)	70	85	77	77 (58)
	-40℃ (-40°F)	42	54	53	50 (38)
AWS A5.28 ER110S-G	Not Specified				

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.



Bead Appearance

❖ Welding bead appearance (H-Fillet Position)

Welding condition : 280A/31V, Welding position : Horizontal-fillet(2F, PB)
Shielding gas : 80%Ar+20%CO₂



Notice

***This test report is made for giving general information,
and it's not meaning guarantee.
Test results are changeable by several welding
- parameter including base materials***