HYUNDAI WELDING

Rev. 03

SM-110

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

2022.04

HYUNDAI WELDING CO., LTD.

SM-110

❖ Specification

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

❖ 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

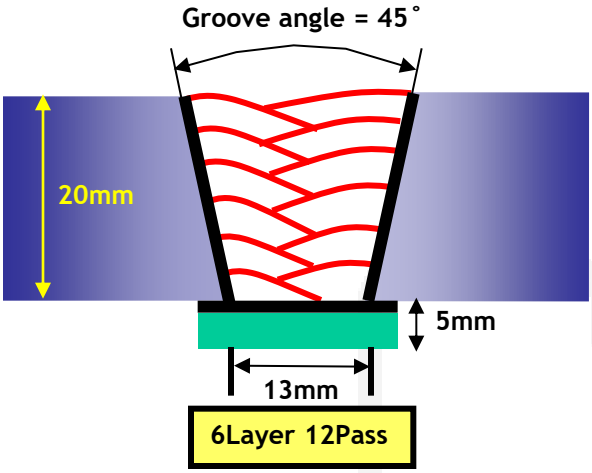
GMAW : DC+

❖ 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%CO_2

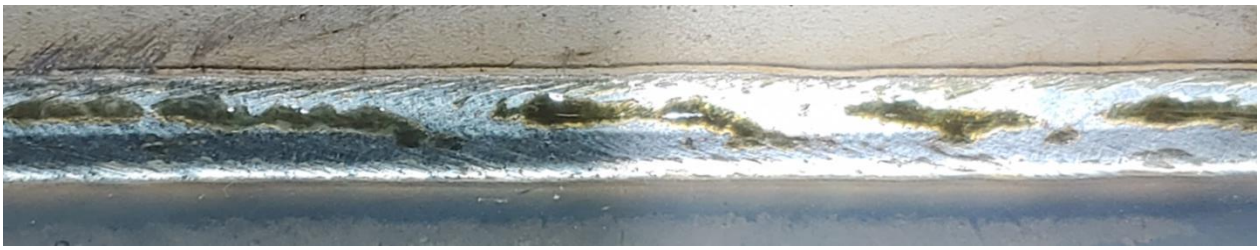
Brand Name	Tensile Test Results.		
SM-110	YS MPa(ksi)	TS MPa(ksi)	EL(%)
	640	810 (117.5)	21.6
AWS A5.28 ER110S-G	-	≥760	-

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

Bead Appearance

❖ Welding bead appearace (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