

SC-A4S

SUBMERGED ARC WIRE FOR HIGH STRENGTH TMCP OR
CREEP-RESISTANCE STEELS



❖ Specification

AWS A5.23

F8P2-ECA4-A4

❖ Description & Applications

SC-A4S is low alloyed submerged arc wire for high deposition rate submerged arc welding of high yield strength steel.
(Use on High Strength Steel (Specially, Fine-grained Steels), Creep Resisting Steel)

❖ Welding Process

SAW (with S-717 flux)

❖ Current Type

DC+

❖ Packing

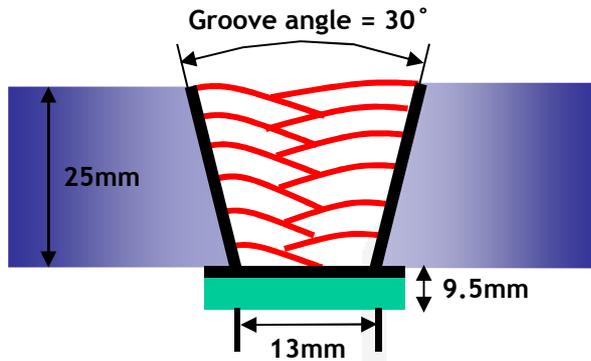
SC-A4S	Dia.	2.4mm(3/32in)
	Coil	25kg(55lbs)
	Pailpack	150kg(330lbs), 250kg(551lbs)



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions

Method by AWS Spec.



Diameter	: 2.4mm(3/32in)
Welding Type	: SAW(S-717)
Amp./ Volt.	: 340 / 30
Stick-Out	: 25~30mm(0.98~1.18in)
Pre-Heat	: 150~250℃(302~482°F)
Interpass Temp.	: 150±15℃(302±59°F)
Post-Heat	: 620±15℃(1148±59°F)

❖ Mechanical Properties of All weld metal

Consumable	Tensile Test			CVN Impact Test J(ft·lbs)
	YS (Mpa / Ksi)	TS (Mpa / Ksi)	EL(%)	-29℃ (-20°F)
SC-A4S	610(88)	670(97)	24.4	70(52)
AWS A5.23 F8P2-ECA4-A4	≥ 470 (68)	550~690 (80~100)	≥ 20	≥ 27 at -29℃ (≥ 20ft · lbs at -20°F)

❖ Chemical Analysis of All weld metal(wt%)

Consumable	Chemical Composition (%)						
	C	Si	Mn	P	S	Mo	Cu
SC-A4S	0.10	0.54	1.46	0.014	0.005	0.58	0.012
AWS A5.23 F8P2-ECA4-A4	≤ 0.15	≤ 0.80	≤ 1.60	≤ 0.030	≤ 0.030	0.40~0.65	≤ 0.35

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.



Test Results

❖ BEAD APPEARANCE

Consumable	SC-A4S
Amp.(A)	360~380
Volt.(V)	27~28
Carrige Speed	40~60cm/min(15.7~23.6in/min)
Welding Position	Flat(1G)



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.