

SC-45S

SUBMERGED ARC WIRE FOR BUILD UP OR HARDFACING ON THE PART
WHICH DOES NOT HAVE MUCH ALLOY ELEMENTS



❖ **Specification**

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❖ **Description & Applications**

SC-45S is a submerged arc wire used for hardfacing and rebuilding components subject to metal-metal wear and moderate abrasion. The weld deposit is a low/medium alloy steel that is a tough pearlitic/martensitic.
(Steel mill rolls, Crane & Mine Car Wheels etc.)

❖ **Welding Process**

SAW (with S-717 flux)

❖ **Current Type**

DC+

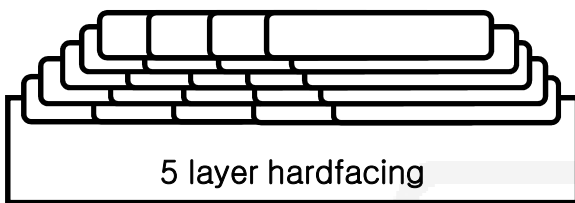
❖ **Packing**

SC-45S	Dia.	3.2mm(1/8in)
	Coil	25kg(55lbs)
	Pailpack	150kg(330lbs), 250kg(551lbs)



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



Diameter	: 3.2mm(1/8in)
Welding Type	: SAW(S-717)
Amp./ Volt.	: 400 / 30
Stick-Out	: 25~30mm(0.98~1.18in)
Pre-Heat °C	: 150~250°C(302~482°F)
Interpass Temp.	: 200~300°C(392~572°F)
Total layers	: ≥4 layer

❖ Chemical Analysis of All weld metal(wt%)

Consumable		C	Si	Mn	Cr	Mo
SC-45S	1Layer	0.19	0.40	1.83	2.20	0.37
	2Layer	0.20	0.44	2.10	2.81	0.53
	Multi Layer	0.23	0.45	2.15	3.20	0.60

❖ Hardness test of All weld metal(HRC)

Consumable		Hardness(HRC)					Avg.
SC-45S	1 Layer	42	43	44	45	45	44.5
	2 Layer	46	47	47	48	49	47.5
	Multi Layer	48	48	48	49	51	48.5

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-45S
Amp.(A)	380~400
Volt.(V)	28~30
Carrige Speed	40~60cm/min(15.7~23.6in/min)
Welding Position	Flat(1G)



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