

SC-414S(N)

MARTENSITIC STS TYPE SUBMERGED ARC WIRE



SC-414S(N)

❖ Specification

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❖ Description & Applications

SC-414S(N) is specifically designed for weld overlay on continuous caster rolls and provides the greatest resistance to thermal fatigue cracking and corrosion. Better tensile strength and wear resistance by adding N.

(Steel Mill Rolls, Casting Rolls, etc.)

❖ Welding Process

SAW (with S-402HF flux)

❖ Current Type

DC+

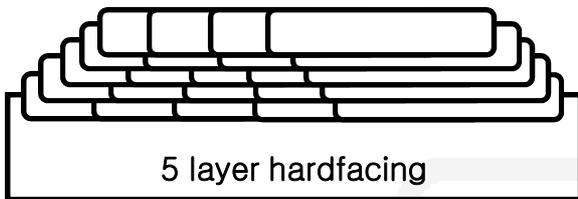
❖ Packing

SC-414S(N)	Dia.	3.2mm(1/8in)
	Coil	25kg(55lbs)
	Pailpack	150kg(330lbs), 250kg(551lbs)



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



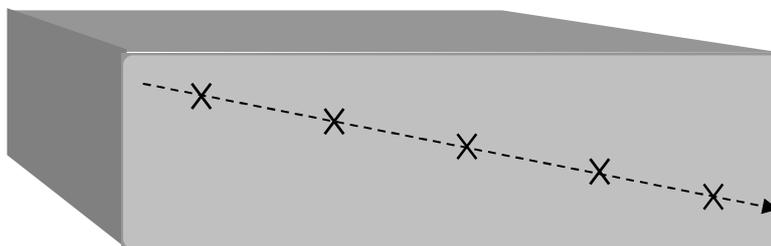
- Diameter** : 3.2mm(1/8in)
- Welding Type** : SAW(S-402HF)
- Amp./ Volt.** : 400 / 30
- Stick-Out** : 25~30mm(0.98~1.18in)
- Pre-Heat** : 150~250℃(302~482°F)
- Interpass Temp.** : 200~300℃(392~572°F)
- Total layers** : ≥4 layer

❖ Chemical Analysis of All weld metal(wt%)

Consumable	C	Si	Mn	Cr	Ni	Mo	Nb	V	N
SC-414S(N)	0.1	0.6	1.8	14.0	2.5	1.2	0.2	0.3	0.05

❖ Hardness test of All weld metal(HRc)

Consumable	Hardness(HRc)					Avg.
SC-414S(N)	45	46	46	47	48	46.2



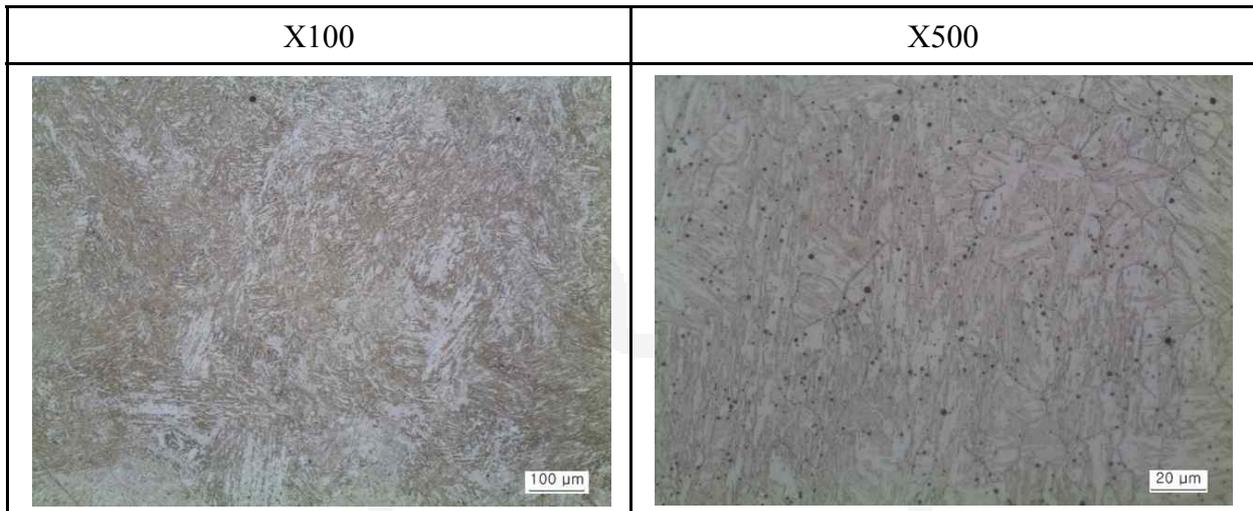
[Point of Hardness Test]

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

❖ Microstructure



❖ BEAD APPEARANCE

Consumable	SC-414S(N) (3.2mm, 1/8in)
Amp. (A)	380~400
Volt. (V)	30
Carrige Speed	40~60cm/min(15.7~23.6in/min)
Welding Position	Flat(1G)



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