

SC-600HM

METAL CORED WIRE FOR HARDFACING



❖ Specification

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❖ Applications

For cutting tools, shear blades, rollers for cold rolling mills

❖ Characteristics on Usage

SC-600HM is a metal cored wire without slag for hardfacing application with Ar-CO₂ mixed gas. It is high resistance to cracking and toughness.

❖ Note on Usage

Use with 80%Ar + 20%CO₂ shielding gas.

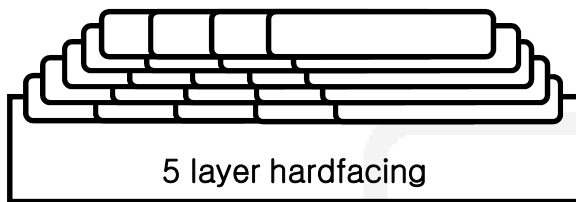
❖ Packing

Dia.	1.2mm (0.045in)	1.6mm (1/16in)
Spool	5kg(11lbs), 15kg(33lbs)	



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



5 layer hardfacing

- Diameter** : 1.2mm(0.045in)
- Shielding Gas** : 80%Ar+20%CO₂
- Flow Rate(ℓ /min.)** : 20~22
- Amp./ Volt.** : 260/30
- Stick-Out(mm)** : 20mm(0.79in)
- Pre-Heat(℃)** : ≥150℃(302°F)
- Interpass Temp.(℃)** : 150±15℃(302±59°F)
- Polarity** : DC(+)

❖ Chemical Analysis of All weld metal(wt%)

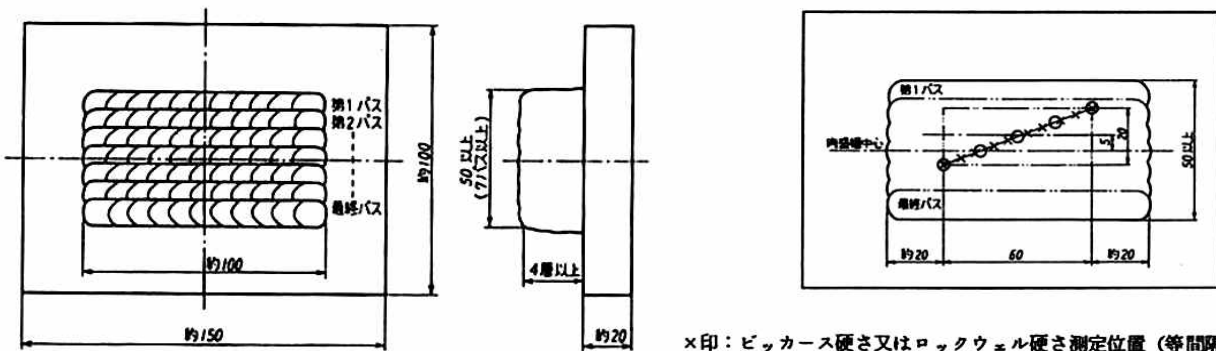
Consumable	Shielding Gas	Chemical Composition (%)						
		C	Si	Mn	P	S	Cr	Mo
SC-600HM 1.2mm (0.045in)	80%Ar+ 20%CO ₂	0.45	0.50	1.63	0.012	0.009	6.37	0.37
SC-600HM 1.6mm (1/16in)		0.48	0.52	1.66	0.012	0.009	6.45	0.38

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.



Mechanical Properties & Chemical Composition of All Weld Metal

❖ **Hardness test of All weld metal(HRc)**



×印：ビッカース硬さ又はロックウェル硬さ測定位置（等間隔に10点測定）
 ○印：ブリネル硬さ測定位置（等間隔に5点測定）

[Method of Hardness Test for Deposited Metal(JIS Z3114 -1990)]

Consumable	Hardness(HRc)										Avg.
SC-600HM 1.2mm(0.045in)	58	58	59	59	59	59	60	60	61	62	59.5
SC-600HM 1.6mm(1/16in)	58	59	59	59	60	61	61	62	62	62	60.3

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Test Results

❖ Bead Appearance

SC-600HM 1.2mm (0.045in)	Horizontal Fillet, Base : Mild Steel, 80%Ar+20%CO₂(260A/30V)
SC-600HM 1.6mm (1/16in)	Flat(Bead on plate), Base : Mild Steel, 80%Ar+20%CO₂(260A/30V)
SC-600HM 1.6mm (1/16in)	Horizontal Fillet, Base : Mild Steel, 80%Ar+20%CO₂(300A/31V)
SC-600HM 1.6mm (1/16in)	Flat(Bead on plate), Base : Mild Steel, 80%Ar+20%CO₂(300A/31V)

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