

SC-EG2 Cored

ELECTRO GAS WELDING CONSUMABLE

2018. 02



SC-EG2 Cored

❖ **Specification**

AWS A5.26

EG70T-2

JIS Z3319

YFEG-22C

❖ **Applications**

Vertical-up butt welding of side shells and inner structures of ships, Plates of storage tank and web members of box-girders of bridges.

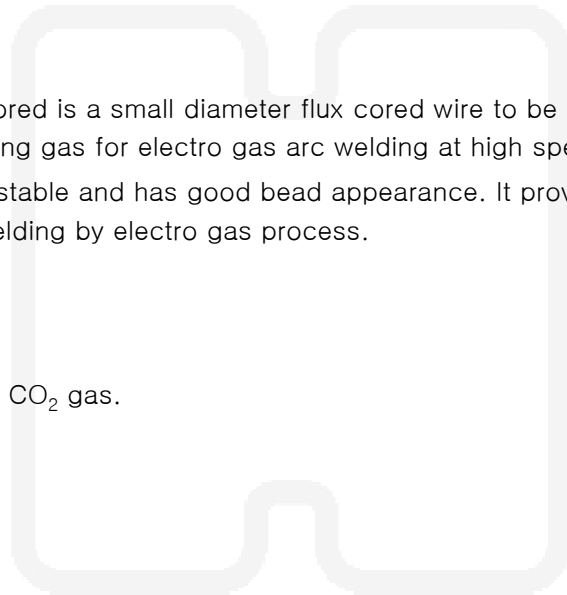
❖ **Characteristics on Usage**

SC-EG2 cored is a small diameter flux cored wire to be used with CO₂ shielding gas for electro gas arc welding at high speed.

The arc is stable and has good bead appearance. It provides highly efficient welding by electro gas process.

❖ **Note on Usage**

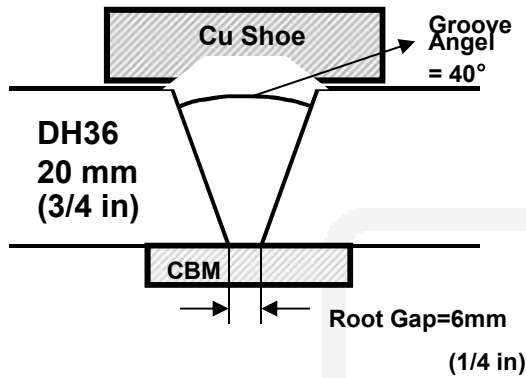
Use 100% CO₂ gas.





Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



[Joint Preparation & Layer Details]

Diameter	: 1.6mm (1/16in)
Shielding Gas	: 100% CO ₂
Flow Rate	: 30~35 ℓ /min
Amp./ Volt.	: 350A / 32V
Heat Input	: 108 kJ/cm (274 kJ/in)
Polarity	: DC(+)
Copper Shoe	: 28 mm(1.1 in)
Baking Material	: CBM600

❖ Mechanical Properties of all weld metal

Consumable	Tensile Test			CVN Impact Test J(ft · lbs)	
	YS Mpa(ksi)	TS Mpa(ksi)	EL (%)	0℃ (32°F)	-20℃ (-4°F)
SC-EG2 Cored	475(69)	586(85)	25.0	113(83)	60(44)
AWS A5.26 EG70T-2	≥ 350 (50)	480~650 (70~95)	≥ 22	≥ 27J at -20℃ (≥ 20ft · lbs at 0°F)	

❖ Chemical Analysis of all weld metal(wt%)

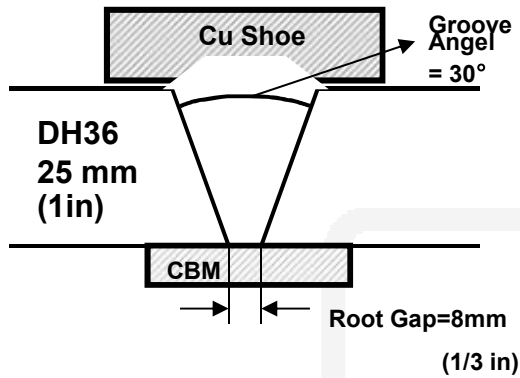
Consumable	C	Si	Mn	P	S	Mo
SC-EG2 Cored	0.083	0.41	1.48	0.011	0.009	0.11
AWS A5.26 EG70T-2	N/S	≤ 0.90	≤ 2.0	≤ 0.03	≤ 0.03	≤ 0.35

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.



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



[Joint Preparation & Layer Details]

Diameter	: 1.6mm (1/16in)
Shielding Gas	: 100% CO ₂
Flow Rate	: 30~35 ℓ /min
Amp./ Volt.	: 380A / 38V
Heat Input(kJ/cm)	: 173 kJ/cm (439 kJ/in)
Polarity	: DC(+)
Copper Shoe	: 28 mm(1.1 in)
Baking Material	: CBM600

❖ Mechanical Properties of all weld metal

Consumable	Tensile Test			CVN Impact Test J(ft · lbs)	
	YS Mpa(ksi)	TS Mpa(ksi)	EL (%)	0℃ (32°F)	-20℃ (-4°F)
SC-EG2 Cored	512(74)	607(88)	26.0	96(67)	60(44)
AWS A5.26 EG70T-2	≥ 350 (50)	480~650 (70~95)	≥ 22	≥ 27J at -20℃ (≥ 20ft · lbs at 0°F)	

❖ Chemical Analysis of all weld metal(wt%)

Consumable	C	Si	Mn	P	S	Mo
SC-EG2 Cored	0.080	0.39	1.62	0.013	0.009	0.13
AWS A5.26 EG70T-2	N/S	≤ 0.90	≤ 2.0	≤ 0.03	≤ 0.03	≤ 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.

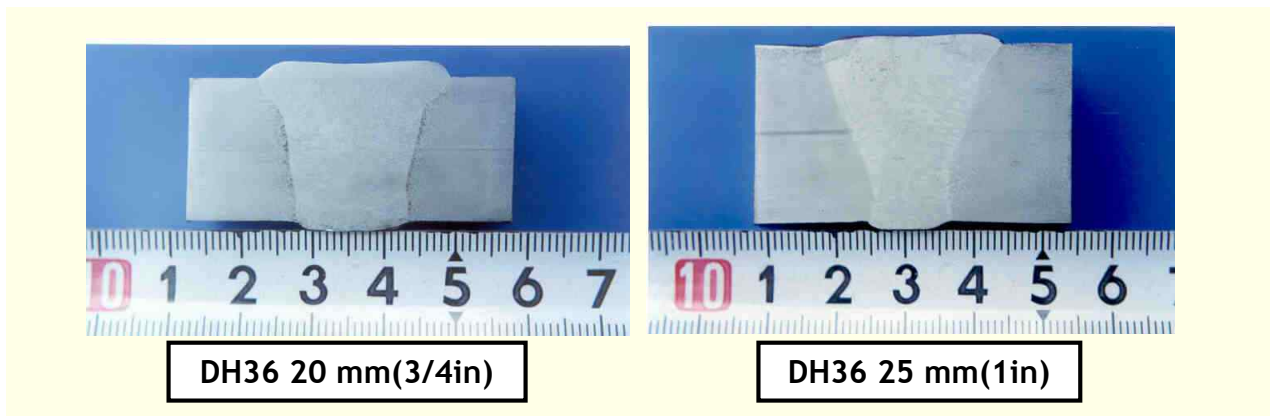


Bead Appearance & Micro Structure

❖ **Bead Appearance**



❖ **Macro Structure**



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.



Proper Welding Condition

❖ Welding Conditions

Consumable	Shielding Gas	Welding Position	Amp.(A) / Volt.(V)
			1.6mm(1/16 in)
SC-EG2 Cored	100%CO ₂	V-Up	330~440A / 32~38V

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.



Approvals

❖ Shipping Approvals

Welding Position	Register of shipping & Size mm(in)						
	KR	ABS	LR	BV	DNV	GL	NK
V-Up	REW3,REW53 1.6 (1/16in)	3,3YH10 1.6 (1/16in)	3,3Y 1.6 (1/16in)	AV3,AV3Y 1.6 (1/16in)	IIY 1.6 (1/16in)	3YV 1.6 (1/16in)	KEW53 1.6 (1/16in)

* Consumable : SC-EG2 Cored / SBM600(CO₂)