



HYUNDAI
W E L D I N G

Rev. 00

SC-EG2 Cored

ELECTRO GAS WELDING CONSUMABLE

HYUNDAI WELDING CO., LTD.



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.

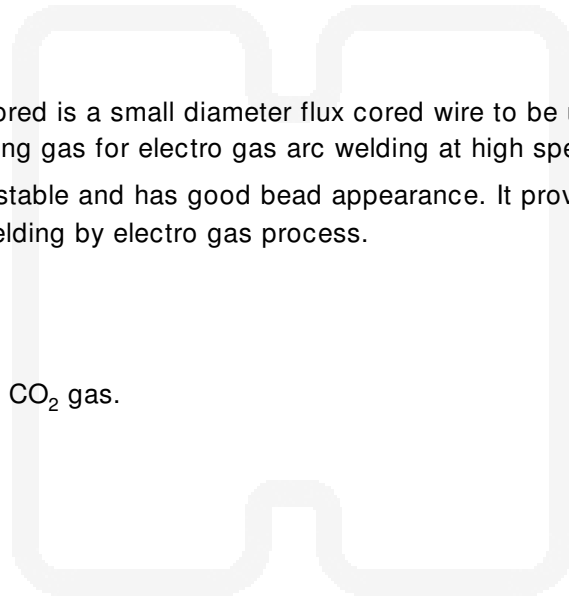
❖ Characteristics on Usage

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

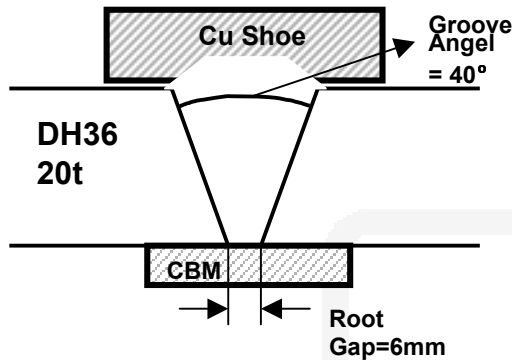
Use 100% CO₂ gas.





Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



[Joint Preparation & Layer Details]

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

❖ Mechanical Properties of all weld metal

Consumable	Tensile Test			CVN Impact Test (Joule)	
	YS(MPa)	TS(MPa)	EL(%)	0 °C	-20 °C
SC-EG2 Cored	475	586	25.0	113	60
AWS A5.26 EG70T-2	≥ 350	480~650	≥ 22	≥ 27J at -20 °C	

❖ Chemical Analysis of all weld metal(wt%)

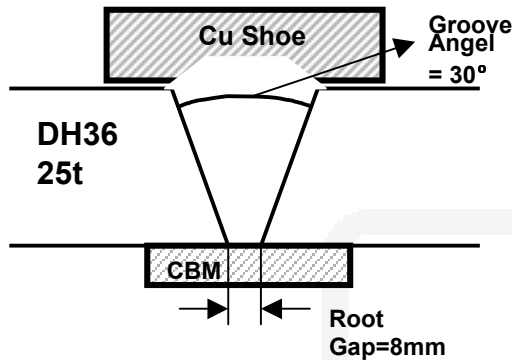
Consumable	C	Si	Mn	P	S	Mo
SC-EG2 Cored	0.083	0.41	1.48	0.011	0.009	0.11
AWS A5.26 EG70T-2	N/S	≤ 0.90	≤ 2.0	≤ 0.03	≤ 0.03	≤ 0.35

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 (mm)	: 1.6mm
Shielding Gas	: 100% CO ₂
Flow Rate (ℓ / min.)	: 30~ 35
Amp. / Volt.	: 380 / 38
Heat Input (KJ/cm)	: 173
Polarity	: DC(+)
Copper Shoe (mm)	: 28
Baking Material	: CBM600

❖ Mechanical Properties of all weld metal

Consumable	Tensile Test			CVN Impact Test (Joule)	
	YS(MPa)	TS(MPa)	EL(%)	0 °C	-20 °C
SC-EG2 Cored	512	607	26.0	96	60
AWS A5.26 EG70T-2	≥ 350	480~650	≥ 22	≥ 27J at -20 °C	

❖ Chemical Analysis of all weld metal(wt%)

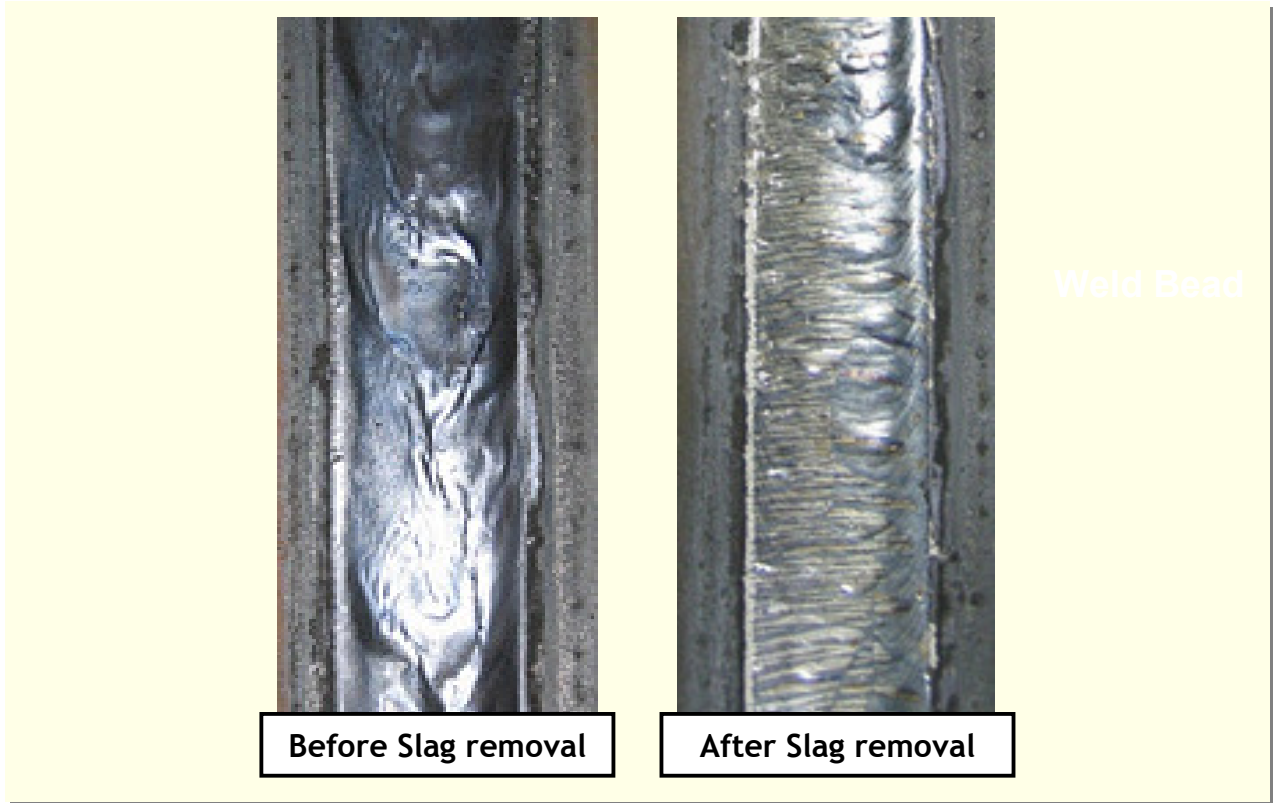
Consumable	C	Si	Mn	P	S	Mo
SC-EG2 Cored	0.080	0.39	1.62	0.013	0.009	0.13
AWS A5.26 EG70T-2	N/S	≤ 0.90	≤ 2.0	≤ 0.03	≤ 0.03	≤ 0.35

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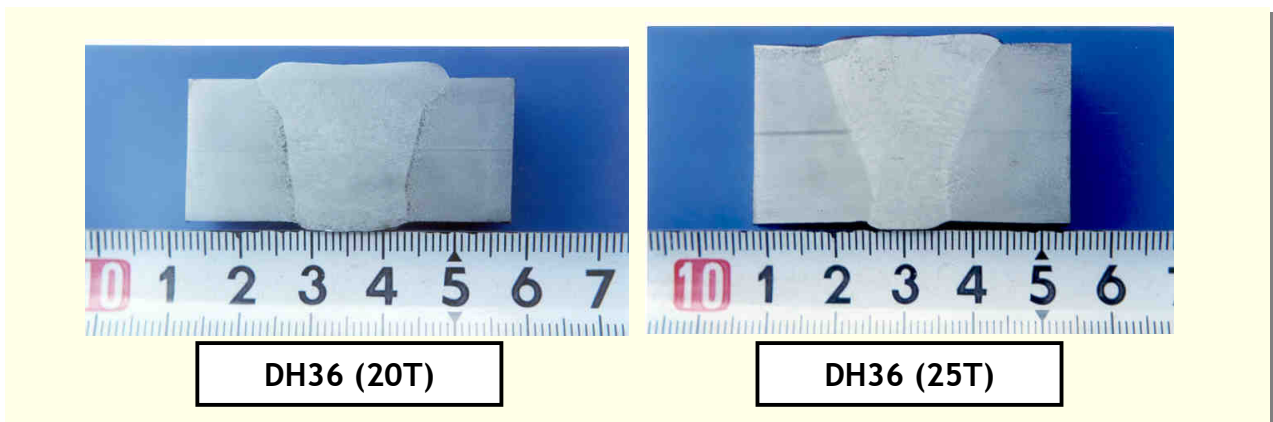


Bead Appearance & Micro Structure

❖ **Bead Appearance**



❖ **Macro Structure**



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Proper Welding Condition

❖ Welding Conditions

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

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Approvals

❖ Shipping Approvals

Welding Position	Resister of shipping & Size(mm)						
	KR	ABS	LR	BV	DNV	GL	NK
V- Up	REW3,REW53	3,3YH10	3,3Y	AV3,AV3Y	IYY	3YV	KEW53
	1.6	1.6	1.6	1.6	1.6	1.6	1.6

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