

Supershield EG-82T

SELF-SHIELD FLUX CORED CONSUMABLE
FOR ELECTRO GAS ARC WELDING PROCESS
OF HIGH TENSILE STEEL

2019.09



❖ Specification

AWS A5.26

EG82T-G

❖ Applications

Vertical-up, Self-shielded, V-groove & Square Butt joint single pass electro gas arc welding process for Storage tank fabrication and pressure vessels.

❖ Characteristics on Usage

Supershield EG-82T are self shielded consumable used for electro gas arc welding process (EGW).

This wire provide good bead appearance and good mechanical properties, thin slag which removes easily and cleanly.

It provides highly efficient welding by electro gas process.

It is suitable for welding of High strength low alloy steel

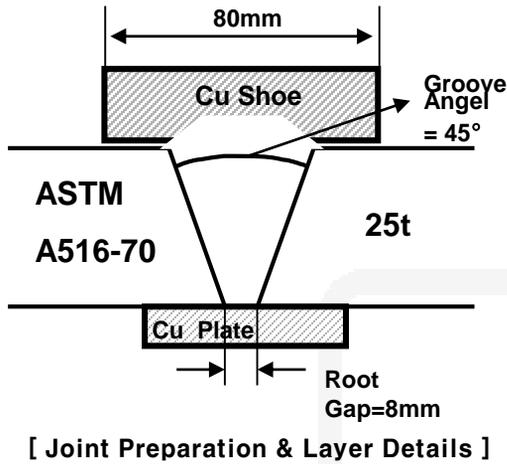
❖ Note on Usage

Do not use shielding gas



Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions



Welding Position	: 3G(PF)
Diameter(mm)	: 2.4mm(3/32in)
Shielding Gas	: N/A
Amp./ Volt.	: 450 / 38
Heat Input(KJ/cm)	: 180
Polarity	: DC(+)
Copper Shoe	: Movable Cu Dam (Water Cooling)
Back Plate	: Cu Plate

❖ Mechanical Properties of all weld metal

Consumable	Tensile Test			CVN Impact Test J(ft · lbs)	
	YS MPa(lbs/in ²)	TS MPa(lbs/in ²)	EL(%)	-29℃ (-20°F)	-40℃ (-40°F)
Supershield EG-82T	539(78,000)	681(99,000)	24	65(48)	50(37)
AWS A5.26 EG82T-G	≥ 410 (60,000)	550~700 (80,000~102,000)	≥ 20	≥ 27J at -29℃ (≥ 20ft · lbs at -20°F)	

❖ Chemical Analysis of all weld metal(wt%)

Consumable	C	Si	Mn	P	S	Mo	Ni
Supershield EG-82T	0.051	0.37	1.50	0.005	0.003	0.35	1.22
AWS A5.26 EG82T-G	Not Specified						

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

Slag

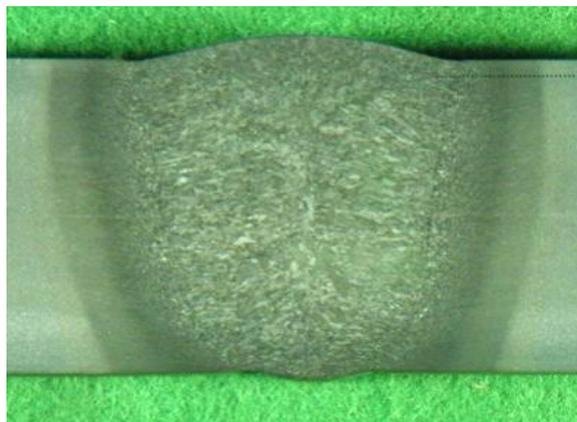
Surface Bead

Surface Bead

Back Bead



❖ Macro Structure



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Proper Welding Condition

❖ Welding Conditions

Consumable	Shielding Gas	CTWD	Welding Position	Wire Feed Speed m/min (in/min)	Amp.(A) / Volt.(V)
					2.4mm(3/32in)
Supershield EG-82T	N/A	38mm (1.5in)	V-Up	6.4(250)	380~450 / 34
				7.6(300)	450~480 / 36
				8.9(350)	480~550 / 38
				10.2(400)	550~600 / 45

❖ F No & A No

F No	A No
6	10