

Dual Shield 7100SRM

Dual Shield 7100SRM is an all-position flux cored wire that displays exceptional impact properties in both the as welded and stress relieved condition when used with 75% Ar/25% CO₂ shielding. The weld deposit has less than 0.5% nickel which conforms to the A-1 composition in ASME Section IX, QW-440.

Specifications

Classifications	SFA/AWS A5.36 : E71T1-M21-P5-CS2 H4 SFA/AWS A5.36 : E71T1-M21-A5-CS2 H4 SFA/AWS A5.20 : E71T-9MJH4/T-12MJH4
Approvals	LR : 5Y40S(H5) CWB : CSA W48: Class E491T-9MJ-H4, E491T-12MJ-H4
Industry	Marine and Offshore Pressure Vessels Ship/Barge Building

Approvals are based on factory location. Please contact ESAB for more information.

Welding Current	DC+
Diffusible Hydrogen	<4
Alloy Type	C Mn Ni
Shielding Gas	M21 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
Stress Relieved 8 hour(s) 620 °C (1150 °F)	405 MPa (59 ksi)	498 MPa (72 ksi)	33 %
As Welded	425 MPa (62 ksi)	510 MPa (74 ksi)	32 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
Stress Relieved	-40 °C (-40 °F)	86 J (63 ft-lb)
Stress Relieved	-46 °C (-50 °F)	76 J (56 ft-lb)
Stress Relieved	-29 °C (-20 °F)	115 J (85 ft-lb)
As Welded	-40 °C (-40 °F)	94 J (69 ft-lb)
As Welded	-46 °C (-50 °F)	89 J (66 ft-lb)
As Welded	-29 °C (-20 °F)	123 J (91 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni
0.03	1.40	0.41	0.005	0.013	0.45

Deposition Data

Diameter	Current	Voltage	TTW Dist.
1.6 mm (1/16 in.)	280-460 A	26-36 V	20-25 mm (0.75-1 in.)
1.6 mm (1/16 in.)	160-280 A	24-28 V	13-25 mm (0.5-1 in.)
1.4 mm (.052 in.)	280-390 A	24-34 V	20-25 mm (0.75-1 in.)
1.4 mm (.052 in.)	150-280 A	22-28 V	13-25 mm (0.5-1 in.)
1.2 mm (.045 in.)	270-330 A	24-34 V	20-25 mm (0.75-1 in.)
1.2 mm (.045 in.)	140-270 A	22-28 V	13-25 mm (0.5-1 in.)

Recommended Welding Parameters

Current	Wire Diameter	Voltage
140-270 A	1.14 mm	22-28 V

MILD STEEL

GAS-SHIELDED FLUX-CORED WIRES (FCAW/MCAW)



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Recommended Welding Parameters

Current	Wire Diameter	Voltage
140-330 A	1.14 mm	22-34 V