

Dual Shield 810X-Ni1

Dual Shield 810X-Ni1 provides outstanding operator appeal with an easily controlled arc, improved operation at both lower and higher current levels, minimal spatter and easily removed slag. Dual Shield 810X-Ni1 is designed for use with 100% CO₂. It is an excellent choice for welding on COR-TEN® steel in applications where weathering grade wires are not desirable.

Classifications	AWS A5.29 : E81T1-Ni1CD-JH8 AWS A5.36 : E81T1-C1A4-Ni1-H8 ASME SFA 5.36 ASME SFA 5.29
Approvals	CWB CSA W48 E551T1-Ni1C-H8 Seismic Certified "D"
Industry	Barges Bridge Construction Civil Construction Industrial and General Fabrication Power Generation Railcars Ship/Barge Building Light Equipment Heavy Equipment

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

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
100% CO₂			
As Welded	590 MPa (86 ksi)	635 MPa (92 ksi)	29 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
100% CO₂		
As Welded	-29 °C (-20 °F)	81 J (60 ft-lb)
As Welded	-40 °C (-40 °F)	61 J (45 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni
0.04	1.30	0.60	0.009	0.010	1.00

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate	Deposition Efficiency %
100% CO₂					

Recommended Welding Parameters

Wire Diameter	Current	Voltage	TTW Dist.	Wire Feed Speed
100% CO₂				
1.6 mm (1/16 in.)	290-415 A	28-32 V	25.4-31.75 mm (1-1.25 in.)	1016-1270 cm/min (400-500 in./min)
1.6 mm (1/16 in.)	245-345 A	27-30 V	19-25.4 mm (3/4-1 in.)	673-1016 cm/min (265-400 in./min)
1.6 mm (1/16 in.)	165-270 A	25-28 V	15.8-19 mm (5/8-3/4 in.)	343-673 cm/min (135-265 in./min)
1.4 mm (.052 in.)	250-350 A	29-31 V	19-25.4 mm (3/4-1 in.)	1016-1524 cm/min (400-600 in./min)
1.4 mm (.052 in.)	215-290 A	25-29 V	15.8-19 mm (5/8-3/4 in.)	711-1016 cm/min (280-400 in./min)
1.4 mm (.052 in.)	125-235 A	23-26 V	12.7-15.8 mm (1/2-5/8 in.)	330-711 cm/min (130-280 in./min)
1.2 mm (.045 in.)	180-265 A	26-30 V	19-25.4 mm (3/4-1 in.)	889-1397 cm/min (350-550 in./min)
1.2 mm (.045 in.)	175-230 A	25-27 V	12.7-19 mm (1/2-3/4 in.)	737-889 cm/min (290-350 in./min)
1.2 mm (.045 in.)	135-205 A	23-26 V	9.5-12.7 mm (3/8-1/2 in.)	432-737 cm/min (170-290 in./min)