

# Dual Shield 710X-M

Dual Shield 710X-M 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 710X-M is designed to be used with 75/25 Argon CO<sub>2</sub> gas mix.

<b>Classifications:</b>	AWS A5.20:E71T-1MD-H8/T-9MD-H8, AWS A5.36:E71T1-M21A4-CS1-DH8, ASME SFA 5.20, ASME SFA 5.36
<b>Approvals:</b>	Seismic Certified "D" , ABS , CWB CSA W48 E491T-9M-H8, DNV-GL , LR , MIL-E-24403A 71T-1M
<b>Industry:</b>	Barges, Industrial and General Fabrication, Light Equipment, Railcars, Civil Construction, Ship/Barge Building

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

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
<b>75% Ar - 25% CO<sub>2</sub></b>			
As Welded	510 MPa (74 ksi)	570 MPa (83 ksi)	29 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
<b>75% Ar - 25% CO<sub>2</sub></b>		
As Welded	-18 °C (0 °F)	97 J (72 ft-lb)
As Welded	-29 °C (-20 °F)	76 J (56 ft-lb)

Typical Weld Metal Analysis %				
C	Mn	Si	S	P
<b>75% Ar - 25% CO<sub>2</sub></b>				
0.04	1.3	0.5	0.008	0.012

Deposition Data						
Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate	TTW Dist.	Efficiency (%)
<b>75% Ar - 25% CO<sub>2</sub></b>						
1.2 mm (.045 in.)	150 A	26 V	381 cm/min (150 in./min)	1.28 kg/h (2.82 lb/h)	12.7 mm (1/2 in.)	79 %
1.2 mm (.045 in.)	190 A	26 V	508 cm/min (200 in./min)	1.75 kg/h (3.85 lb/h)	12.7 mm (1/2 in.)	85.5 %
1.2 mm (.045 in.)	210 A	27 V	635 cm/min (250 in./min)	2.22 kg/h (4.90 lb/h)	19 mm (3/4 in.)	86 %
1.2 mm (.045 in.)	230 A	27 V	762 cm/min (300 in./min)	2.66 kg/h (5.86 lb/h)	19 mm (3/4 in.)	84 %
1.2 mm (.045 in.)	250 A	29 V	889 cm/min (350 in./min)	3.21 kg/h (7.08 lb/h)	25.4 mm (1 in.)	86 %

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Deposition Data						
Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate	TTW Dist.	Efficiency (%)
1.2 mm (.045 in.)	270 A	29 V	1016 cm/min (400 in./min)	3.70 kg/h (8.17 lb/h)	25.4 mm (1 in.)	87 %
1.2 mm (.045 in.)	290 A	-	1143 cm/min (450 in./min)	4.05 kg/h (8.92 lb/h)	25.4 mm (1 in.)	87 %
1.4 mm (.052 in.)	190 A	28 V	381 cm/min (150 in./min)	1.66 kg/h (3.66 lb/h)	15.8 mm (5/8 in.)	83 %
1.4 mm (.052 in.)	220 A	28 V	508 cm/min (200 in./min)	2.20 kg/h (4.86 lb/h)	15.8 mm (5/8 in.)	84.5 %
1.4 mm (.052 in.)	260 A	30 V	635 cm/min (250 in./min)	2.72 kg/h (6.00 lb/h)	19 mm (3/4 in.)	86 %
1.4 mm (.052 in.)	310 A	30 V	762 cm/min (300 in./min)	3.33 kg/h (7.35 lb/h)	19 mm (3/4 in.)	86 %
1.4 mm (.052 in.)	340 A	30 V	889 cm/min (350 in./min)	3.92 kg/h (8.65 lb/h)	19 mm (3/4 in.)	86 %
1.4 mm (.052 in.)	350 A	32 V	1016 cm/min (400 in./min)	4.44 kg/h (9.80 lb/h)	25.4 mm (1 in.)	86 %
1.4 mm (.052 in.)	360 A	32 V	1143 cm/min (450 in./min)	5.01 kg/h (11.05 lb/h)	25.4 mm (1 in.)	87 %
1.4 mm (.052 in.)	370 A	32 V	1270 cm/min (500 in./min)	5.55 kg/h (12.23 lb/h)	25.4 mm (1 in.)	86 %
1.6 mm (1/16 in.)	250 A	28 V	381 cm/min (150 in./min)	2.37 kg/h (5.23 lb/h)	19 mm (3/4 in.)	85 %
1.6 mm (1/16 in.)	300 A	28 V	508 cm/min (200 in./min)	3.21 kg/h (7.08 lb/h)	19 mm (3/4 in.)	85.5 %
1.6 mm (1/16 in.)	360 A	30 V	635 cm/min (250 in./min)	4.85 kg/h (10.70 lb/h)	25.4 mm (1 in.)	86 %
1.6 mm (1/16 in.)	360 A	30 V	635 cm/min (250 in./min)	4.04 kg/h (8.90 lb/h)	25.4 mm (1 in.)	86 %
1.6 mm (1/16 in.)	420 A	32 V	889 cm/min (350 in./min)	5.72 kg/h (12.63 lb/h)	31.75 mm (1 1/4 in.)	86.5 %
1.6 mm (1/16 in.)	430 A	32 V	1016 cm/min (400 in./min)	6.49 kg/h (14.33 lb/h)	31.75 mm (1 1/4 in.)	87 %
1.6 mm (1/16 in.)	480 A	32 V	1143 cm/min (450 in./min)	7.33 kg/h (16.17 lb/h)	31.75 mm (1 1/4 in.)	87 %