

Dual Shield II 711X

Dual Shield II 711X is an all-position flux cored wire that displays exceptional impact properties in combination with CO₂ shielding gas. This flux cored wire was developed to join low and medium carbon steels where higher impacts and toughness are required. As with all X Series wires, Dual Shield II 711X offers higher top-end current levels for out-of-position welding, broader operating ranges and higher deposition rates in out-of-position applications. ~Applications include construction, shipbuilding, rail car, light and heavy equipment, and general fabrication where exceptional impacts are required. Weld metal analysis is similar to Atom Arc 7018 and Atom Arc 7018-1.

Specifications

Classifications	AWS A5.20 : E71T-CJ-DH8/T-9CJ-DH8/T-12CJ-DH8 AWS A5.36 : E71T1-C1A4-CS2-DH8
Approvals	ABS 3SA,3YSA ASME SFA 5.20 AWS A5.20 : E71T-1CJH8/T-9CJH8/T-9M H8/T-12CJH8 AWS A5.20 : E71T-CJH8/T-9CJH8/T-12CJH8 CERTIFIED BY C.W.B. - CSA W48 D.N.V.- III YMS(H10) DNV IIIY40MS (H10) L.R. - 3S,3YS
Industry	Railcars Civil Construction Industrial and General Fabrication Ship/Barge Building

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

Tensile Properties

Yield Strength	Tensile Strength	Elongation
100% CO₂		
540 MPa	595 MPa	29 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
100% CO₂		
As Welded	-18 °C	130 J
As Welded	-40 °C	49 J
As Welded	-29 °C	107 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni
100% CO₂					
0.04	1.4	0.4	0.010	0.012	0.4

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Efficiency (Per)	TTW Dist	Deposition Rate
100% CO₂						
1.6 mm	210 A	24 V	444.5 cm/min	83 %	19 mm	2.58 kg/h
1.6 mm	162 A	22.5 V	356 cm/min	84 %	19 mm	2.04 kg/h
1.4 mm	172 A	22 V	559 cm/min	83 %	15.8 mm	2.32 kg/h
1.6 mm	245 A	25 V	546 cm/min	84 %	19 mm	3.19 kg/h
1.2 mm	184 A	24 V	800 cm/min	84 %	15.8 mm	3.10 kg/h
1.2 mm	112 A	20.5 V	444.5 cm/min	86 %	15.8 mm	1.46 kg/h
1.2 mm	140 A	22 V	571.5 cm/min	84 %	15.8 mm	2.20 kg/h
1.4 mm	220 A	24 V	762 cm/min	83 %	15.8 mm	3.20 kg/h
1.6 mm	270 A	27 V	635 cm/min	84 %	19 mm	3.77 kg/h

MILD STEEL

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



Dual Shield II 711X

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Efficiency (Per)	TTW Dist	Deposition Rate
1.2 mm	235 A	26.5 V	1079.5 cm/min	85 %	15.8 mm	3.58 kg/h
1.4 mm	260 A	26.5 V	952.5 cm/min	84 %	15.8 mm	4.11 kg/h