Dual Shield II 712X

Dual Shield II 712X is an all-position flux cored wire intended for applications requiring outstanding weld metal toughness. This X Series wire, in combination with 75% Argon/25% CO2 shielding gas, can produce Charpy V-Notch impact results of more than 40 ft-lb (68 J) at -60°F (-51°C) and Crack Tip Opening Displacement (CTOD) results of more than 20 mils (0.5 mm) at -40°F (-40°C). Dual Shield II 712X also provides the smooth arc and low spatter levels characteristic of Dual Shield flux cored wires. Applications include off-shore oil components, shipbuilding and heavy equipment where exceptional Charpy impact/low temperature toughness is required.

Specifications	
Classifications	ASME SFA 5.36 ASME SFA 5.20 AWS A5.36 : E71T1-M21A6-CS2-H8 AWS A5.20 : E71T-1MJH8/T-9MJH8/T-12MJH8
Approvals	ABS CWB : W48 E491T-12MJ-H8 DNV-GL LR
Industry	Heavy Equipment Ship/Barge Building Offshore Oil

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

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
75% Ar - 25% CO2			
As Welded	540 MPa (78 ksi)	570 MPa (83 ksi)	28 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
75% Ar - 25% CO2		
As Welded	-40 °C (-40 °F)	125 J (93 ft-lb)
As Welded	-51 °C (-60 °F)	62 J (46 ft-lb)
As Welded	-18 °C (0 °F)	175 J (129 ft-lb)

Typical Weld Metal Analysis %				
C	**Mn**	**Si**	**S**	**P**
75% Ar - 25% CO2				
0.05	1.1	0.3	0.010	0.009