

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.

| Tensile Properties | | | |
|------------------------------------|----------------|------------------|------------|
| Testing Condition | Yield Strength | Tensile Strength | Elongation |
| 75% Ar - 25% CO₂ | | | |
| As Welded | 540 MPa | 570 MPa | 28 % |

| Charpy Testing | | |
|------------------------------------|--------------|--------------|
| Testing Condition | Testing Temp | Impact Value |
| 75% Ar - 25% CO₂ | | |
| As Welded | -40 °C | 125 J |
| As Welded | -51 °C | 62 J |
| As Welded | -18 °C | 175 J |

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