

## Dual Shield 9000-C1

Dual Shield 9000-C1 is an all-position flux cored electrode which produces a 2.5% Ni deposit. The analysis is very similar to the Dual Shield T-90C1 except that this product has out-of-position capability. Dual Shield 9000-C1 is used for welding of 2-3% Ni steels and castings used in applications requiring good toughness at subzero temperatures. Shielding gas 100% CO<sub>2</sub> and 75% Ar - Remainder CO<sub>2</sub> may be used.

### Specifications

<b>Classifications</b>	SFA/AWS A5.29 : E91T1-Ni2C SFA/AWS A5.29 : E91T1-Ni2M
<b>Industry</b>	Process Ship and Offshore Yards

<b>Alloy Type</b>	Low Alloy 2.5% Ni
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### Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
<b>M21 Shielding Gas</b>			
As Welded	610 MPa	680 MPa	24 %
<b>C1 Shielding Gas</b>			
As Welded	580 MPa	665 MPa	25 %

### Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
<b>M21 Shielding Gas</b>		
As Welded	-40 °C	45 J
<b>C1 Shielding Gas</b>		
As Welded	-40 °C	41 J
As Welded	-18 °C	52 J

### Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni
0.07	1.20	0.50	0.010	0.013	2.50

### Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	TTW Dist.	Deposition Rate
1.2 mm	150-310 A	28-34 V	5.08-15.24 m/min		1.91-5.31 kg/h
1.6 mm	245-475 A	29-36 V	5.08-11.43 m/min	16.0 mm	3.7-8.19 kg/h