

DUAL SHIELD 7000-A1

Tech Data Sheet

Industry

Shipbuilding
Power Generation
Mobile Machinery
General Fabrication
Civil Construction

Welding Process

FCAW (Flux Core)

Classifications/Approvals

ASME SFA 5.29
AWS A5.29; E81T1-A1C/A1M

Welding Position

All Position

Filler Metal Type

Low Alloy

Shielding Gas

Argon Based Mix
100% CO₂

AWS Classifications

AWS A5.29; E81T1-A1
AWS A5.20; E71T-1



Dual Shield 7000-A1 is an all-position flux cored electrode recommended for 0.5% Mo steels. It is used in the fabrication and erection of boilers, pressure piping and tubing and other pressure vessel applications. Shielding gas of 100% CO₂ and 75% Ar, remainder CO₂ may be used. A 75% Ar/25% CO₂ shielding gas mixture is recommended to improve arc characteristics, increase wetting action, decrease penetration, and provide easier arc control for out-of-position welding. The weld metal analysis is similar to an E7018-A1 low hydrogen electrode.

Available Parts				
Part No.	Size	Length	Weight	Package
245012521	.045	33 in.	33	Spool

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Typical Mechanical Properties

As Welded	
Yield Strength	82 ksi (566 MPa)
Tensile Strength	92 ksi (635 MPa)
Elongation % in 2"	22 %
Stress Relieved 1 hr @ 1150°F (620°C)	
Yield Strength	82 ksi (566 MPa)
Tensile Strength	93 ksi (645 MPa)
Elongation % in 2"	26 %

Typical Charpy V-Notch Impact Properties

Testing Temperature @ 72°F (22°C)	
As Welded	43 ft.-lbs (58 J)
Testing Temperature @ 0°F (-18°C)	
As Welded	20 ft.-lbs (27 J)

Typical Undiluted Weld Metal Analysis

C	0.05 %
Mn	0.09 %
Si	0.6 %
P	0.01 %
S	0.008 %
Mo	0.55 %