Dual Shield 9000-B3L

Dual Shield 9000-B3L is an all-position flux cored electrode for low carbon grades of 2.25% Cr-1% Mo steels. It is designed for use with 75% - 90% Argon, remainder CO2 shielding gases. The weld metal analysis is similar to an E9018-B3L low hydrogen electrode

Specifications	
Classifications	ASME SFA 5.36 ASME SFA 5.29 AWS A5.36 : E91Ti-C1PZ-B3L AWS A5.36 : E91T1-M21PZ-B3L AWS A5.29 : E91T1-B3LC/B3LM
Industry	Pipeline Petrochemical Chemical Industry

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
Stress Relieved 1 hour(s) 691 °C (1275 °F)	545 MPa (79 ksi)	635 MPa (92 ksi)	22 %

Typical Weld Metal Analysis %						
C	**Mn**	**Si**	**S**	**P**	**Cr**	**Mo**
75% Ar - 25% CO2						
0.02	0.80	0.40	0.01	0.01	2.20	1.10

Deposition Data					
Diameter	**Current**	**Voltage**	**Wire Feed Speed**	**Deposition Efficiency (%)**	**Deposition Rate**
75% Ar - 25% CO2					
1.6 mm (1/16 in.)	410 A	33 V	889 cm/min (350 in./min)	88 %	6.35 kg/h (14 lbs/h)
1.2 mm (.045 in.)	150 A	28 V	508 cm/min (200 in./min)	86 %	1.91 kg/h (4.2 lbs/h)
1.4 mm (.052 in.)	245 A	28 V	635 cm/min (250 in./min)	86 %	3.31 kg/h (7.3 lbs/h)
1.6 mm (1/16 in.)	500 A	39 V	1270 cm/min (500 in./min)	87 %	9.11 kg/h (20.1 lbs/h)
1.2 mm (.045 in.)	210 A	29 V	762 cm/min (300 in./min)	86 %	2.86 kg/h (6.3 lbs/h)
1.2 mm (.045 in.)	290 A	33 V	1270 cm/min (500 in./min)	87 %	4.85 kg/h (10.7 lbs/h)
1.4 mm (.052 in.)	155 A	25 V	381 cm/min (150 in./min)	87 %	2 kg/h (4.4 lbs/h)
1.2 mm (.045 in.)	250 A	30 V	1016 cm/min (400 in./min)	87 %	3.86 kg/h (8.5 lbs/h)
1.2 mm (.045 in.)	330 A	34 V	1524 cm/min (600 in./min)	87 %	5.76 kg/h (12.7 lbs/h)
1.6 mm (1/16 in.)	300 A	30 V	35 cm/min (250 in./min)	87 %	4.63 kg/h (10.2 lbs/h)
1.4 mm (.052 in.)	430 A	37 V	1524 cm/min (600 in./min)	87 %	7.98 kg/h (17.6 lbs/h)
1.4 mm (.052 in.)	310 A	33 V	889 cm/min (350 in./min)	85 %	4.63 kg/h (10.2 lbs/h)

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Deposition Data					
Diameter	**Current**	**Voltage**	**Wire Feed Speed**	**Deposition Efficiency (%)**	**Deposition Rate**
1.6 mm (1/16 in.)	365 A	33 V	762 cm/min (300 in./min)	86 %	5.58 kg/h (12.3 lbs/h)
1.6 mm (1/16 in.)	450 A	33 V	016 cm/min (400 in./min)	87 %	7.3 kg/h (16 lbs/h)
1.6 mm (1/16 in.)	190 A	27 V	38 cm/min (150 in./min)	87 %	2.77 kg/h (6.1 lbs/h)
1.4 mm (.052 in.)	360 A	36 V	1143 cm/min (450 in./min)	85 %	6.03 kg/h (13.3 lbs/h)