

Dual Shield 111-RB

Dual Shield 111-RB is a low slag, high deposition flux cored electrode designed for joining structural components made of low carbon steel and can be used to weld over some primer compositions. The electrode is designed to be used with 100% CO₂ gas shielding. Dual Shield 111-RB can achieve deposition efficiency above 88%. This increases the amount of deposit achieved over a given period of time, as compared to a standard Dual Shield E70T-1 electrode.

Specifications	
Classifications	SFA/AWS A5.20 : E70T-1C SFA/AWS A5.29 : E80T-1GC
Approvals	ABS : 2YSA BV : SA2YM DNV : II YMS GL : 2YS LR : 2S, 2YS MIL : MIL-70T-1C
Industry	Mobile Equipment Industrial and General Fabrication Civil Construction Ship/Barge Building

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

Alloy Type	Carbon Manganese
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Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
C1			
As Welded	515 MPa (75 ksi)	600 MPa (87 ksi)	28 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
C1		
As Welded	-18 °C (0 °F)	38 J (28 ft-lb)

Typical Weld Metal Analysis %				
C	Mn	Si	S	P
0.05	1.5	0.04	0.015	0.014

Deposition Data				
Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.4 mm (0.052 in.)	310-360 A	25-34 V	3.81-11.43 m/min (150-450 in./min)	2.0-6.03 kg/h (4.4-13.3 lbs/h)
1.6 mm (1/16 in.)	300-450 A	30-32 V	5.74-10.72 m/min (226-422 in./min)	4.63-7.3 kg/h (10.2-16. lbs/h)
2.0 mm (5/64 in.)	250-450 A	26-31 V	2.84-6.55 m/min (112-258 in./min)	2.9-6.71 kg/h (6.4-14.8 lbs/h)
2.4 mm (3/32 in.)	400-550 A	32-34 V	5.51-6.86 m/min (217-270 in./min)	5.76-9.66 kg/h (12.7-21.3 lbs/h)

Recommended Welding Parameters				
Current	Wire Diameter	TTW Dist.	Voltage	Wire Feed Speed
75% Ar - 25% CO ₂				
550 A	2.4 mm (3/32 in.)	25.4 mm (1 in.)	34 V	879 mm/min (346 in./min)

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Recommended Welding Parameters

Current	Wire Diameter	TTW Dist.	Voltage	Wire Feed Speed
500 A	2.4 mm (3/32 in.)	25.4 mm (1 in.)	33 V	686 mm/min (270 in./min)
300 A	1.6 mm (1/16 in.)	25.4 mm (1 in.)	30 V	574 mm/min (226 in./min)
400 A	1.6 mm (1/16 in.)	25.4 mm (1 in.)	32 V	937 mm/min (369 in./min)
450 A	1.6 mm (1/16 in.)	25.4 mm (1 in.)	32 V	1072 mm/min (422 in./min)
450 A	2.4 mm (3/32 in.)	25.4 mm (1 in.)	34 V	551 mm/min (217 in./min)
475 A	2.4 mm (3/32 in.)	25.4 mm (1 in.)	32 V	622 mm/min (245 in./min)