OK 68.81

OK 68.81 is a high-alloyed electrode which deposits a ferritic-austenitic duplex weld metal with approx. 40% ferrite. It is resistant to stress corrosion and is highly insensitive to dilution. Good scaling resistance up to 1150°C. OK 68.81 is used for joining dissimilar steels, steels with reduced weldability and buffer layers prior to hardfacing. Applications: rolls, forging dies, hot-work tools, dies for plastics and so on.

Classifications	SFA/AWS A5.4 : E312-17 EN 14700 : E Fe11 EN ISO 3581-A : E 29 9 R 3 2 Werkstoffnummer : 1.4337
Approvals	CE EN 13479 Seproz UNA 272580

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

Welding Current	DC+, AC
Ferrite Content	FN 30 - 50
Alloy Type	Stainless duplex
Coating Type	Acid Rutile

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
AWS			
As Welded	610 MPa (88 ksi)	790 MPa (115 ksi)	25 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
AWS		
As Welded	20 °C (68 °F)	30 J (22 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	Mo	N	Ferrite FN
0.13	0.9	0.7	10.2	28.9	0.04	0.09	40

Deposition Data

Diameter	Current	Voltage	Number of electrodes/ kg weld metal	Burn-off Time/ Electrode	Deposition Efficiency %	Deposition Rate @ 90% I max
2.0 x 300.0 mm (5/64 x 11.8 in.)	40-60 A	22 V	123	41 sec	64 %	0.7 kg/h (1.5 lb/h)
2.5 x 300.0 mm (0.098 x 11.8 in.)	50-85 A	24 V	78	48 sec	64 %	0.9 kg/h (2.0 lb/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	60-125 A	25 V	42	65 sec	62 %	1.3 kg/h (2.9 lb/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	80-175 A	26 V	26	66 sec	62 %	2.0 kg/h (4.4 lb/h)
5.0 x 350.0 mm (0.197 x 13.8 in.)	150-240 A	28 V	17	68 sec	65 %	3.2 kg/h (7.1 lb/h)

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