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:	EN 14700:E Fe11, EN ISO 3581-A:E 29 9 R 3 2, SFA/AWS A5.4:E312-17, 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	790 MPa	25 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
AWS		
As welded	20 °C	30 J

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	kg weld metal/ kg electrodes	Number of electrodes/kg weld metal	Fusion time per electrode at 90% I max	Deposition rate 90% I max
2.0 x 300 mm	40-60 A	22 V	0.64	123	41 s	0.7 kg/h
2.5 x 300 mm	50-85 A	24 V	0.64	78	48 s	0.9 kg/h
3.2 x 350 mm	60-125 A	25 V	0.62	42	65 s	1.3 kg/h
4.0 x 350 mm	80-175 A	26 V	0.62	26	66 s	2.0 kg/h
5.0 x 350 mm	150-240 A	28 V	0.65	17	68 s	3.2 kg/h