

OK NiCrFe-3

OK NiCrFe-3 is a nickel based electrode for welding Inconel 600 and similar Inconel alloys, cryogenic steels, martensitic to austenitic steels, dissimilar steels, heat resisting steel castings of limited weldability. OK NiCrFe-3 provides a very crack resistant weld metal.

Classifications	SFA/AWS A5.11 : ENiCrFe-3 EN ISO 14172 : E Ni 6182 (NiCr15Fe6Mn)
Approvals	ABS : ENiCrFe-3 NAKS/HAKC : 2.5 - 4.0 mm

Welding Current	DC+
Alloy Type	Ni-based Cr-alloy
Coating Type	Basic

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
AWS			
As Welded	395 MPa	640 MPa	42 %
ISO			
PWHT 8 hour(s) 620 °C	433 MPa	683 MPa	44 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
AWS		
As Welded	20 °C	110 J
As Welded	-196 °C	95 J
ISO		
PWHT 8 hour(s) 620 °C	20 °C	128 J

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	Nb	Fe
0.04	6.7	0.8	71	15.6	1.7	6.3

Deposition Data

Diameter	Current	Voltage	Efficiency (%)	Number of electrodes/kg weld metal	Fusion time per electrode at 90% I max	Deposition Rate
2.5 x 300.0 mm	50-70 A	22 V	63 %	88	50 sec	0.9 kg/h
3.2 x 350.0 mm	65-105 A	23 V	62 %	57	60 sec	1.2 kg/h
4.0 x 350.0 mm	75-150 A	24 V	64 %	31	60 sec	2.0 kg/h
5.0 x 350.0 mm	120-170 A	25 V	64 %	20	68 sec	2.7 kg/h