

OK 61.86

Niobium stabilized stainless steel electrode for welding niobium or titanium stabilized steels of the 19Cr 10Ni-type. Specially designed for use in applications where heat treatment is required. OK 61.86 can be a bit sensitive for hot cracking, so issued welding procedures should be followed carefully. Despite the low ferrite content level, the maximum working temperature should be limited to maximum 400°C. It will not match the creep resistance of base materials that are designed to work at higher temperatures.

Specifications

Classifications	EN ISO 3581-A : E 19 9 Nb R 1 2 SFA/AWS A5.4 : E347-17 Werkstoffnummer : 1.4551
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Welding Current	AC, DC+
Ferrite Content	FN 4-8
Alloy Type	Austenitic CrNi

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	520 MPa	660 MPa	35 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
ISO		
As Welded	20 °C	55 J

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	N	Nb	Ferrite FN
0.025	0.7	0.8	10.4	19.0	0.09	0.35	5

Deposition Data

Diameter	Current	Voltage	Efficiency (%)	Fusion time per electrode at 90% I max	Deposition Rate
3.2 x 350.0 mm	70-120 A	27 V	55 %	62 sec	1.1 kg/h
4.0 x 350.0 mm	80-170 A	28 V	54 %	64 sec	1.7 kg/h