

OK 61.80

Nb-stabilized MMA-electrode for welding Nb- or Ti-stabilized stainless steel of the 19Cr10Ni-type. The hotcracking resistance is quite good. The ferrite in the weld metal may transform to brittle phases at elevated temperatures. To avoid excessive embrittlement of the welds the maximum working temperature is limited to 400° C.

Classifications	EN ISO 3581-A : E 19 9 Nb R 1 2 SFA/AWS A5.4 : E347-17
Approvals	CE : EN 13479 DNV-GL : VL 347 NAKS/HAKC : 2.5-5.0 mm VdTÜV : 00638

Welding Current	DC+, AC
Ferrite Content	FN 6-12
Alloy Type	Austenitic CrNi
Coating Type	Acid Rutile

Tensile Properties			
Testing Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	480 MPa	620 MPa	40 %

Charpy Testing		
Testing Condition	Testing Temp	Impact Value
ISO		
As Welded	20 °C	60 J
As Welded	0 °C	58 J
As Welded	-60 °C	40 J

Typical Weld Metal Analysis %							
C	Mn	Si	Ni	Cr	N	Nb	Ferrite FN
0.03	0.6	0.7	10.0	19.5	0.09	0.29	7

Deposition Data						
Diameter	Amps	Volts	Efficiency (Per)	Number of electrodes/kg weld metal	Fusion time per electrode at 90Per I max	Deposition rate at 90Per
2.5 x 300.0 mm	50-90 A	26 V	56 %	97	38 sec	1.0 kg/h
3.2 x 350.0 mm	70-130 A	28 V	56 %	50	53 sec	1.4 kg/h
4.0 x 350.0 mm	90-180 A	30 V	56 %	33	55 sec	2.0 kg/h
5.0 x 350.0 mm	140-250 A	31 V	56 %	21	60 sec	2.9 kg/h