

OK 61.85

Nb-stabilized basic coated electrode designed for welding of Nb- or Ti-stabilized stainless steels of the 19Cr10Ni-type. OK 61.85 provides the best hot cracking resistance of the products belonging to the 347 range. Due to the relatively high ferrite content level, the maximum working temperature should be limited to 400°C.

Specifications

Classifications	EN ISO 3581-A : E 19 9 Nb B 2 2 SFA/AWS A5.4 : E347-15 Werkstoffnummer : 1.4551
Approvals	VdTÜV : 05663

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

Welding Current	DC+
Ferrite Content	FN 6-12
Alloy Type	Austenitic CrNi
Coating Type	Basic

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
ISO			
Stress Relieved 16 hour(s) 600 °C (1112 °F)	500 MPa (73 ksi)	640 MPa (93 ksi)	40 %
As Welded	500 MPa (73 ksi)	620 MPa (90 ksi)	40 %

Typical Charpy V-Notch Properties

Testing Temperature	Impact Value
ISO	
-120 °C (-184 °F)	
-60 °C (-76 °F)	40 J (29.5 ft-lb)
20 °C (68 °F)	100 J (74 ft-lb)
-60 °C (-76 °F)	70 J (52 ft-lb)
20 °C (68 °F)	80 J (59 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	N	Nb	FN WRC-92
0.04	1.7	0.4	10.2	19.5	0.07	0.61	8

Deposition Data

Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11.8 in.)	55-80 A	25 V	60 %	42 sec	0.9 kg/h (2.0 lbs/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	75-110 A	23 V	62 %	64 sec	1.2 kg/h (2.6 lbs/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	80-150 A	24 V	61 %	70 sec	1.6 kg/h (3.5 lbs/h)
5.0 x 350.0 mm (0.197 x 13.8 in.)	150-200 A	23 V	61 %	76 sec	2.3 kg/h (5.1 lbs/h)