

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.

Classifications	SFA/AWS A5.4 : E347-15 EN ISO 3581-A : E 19 9 Nb B 2 2 Werkstoffnummer : 1.4551
Approvals	NAKS/HAKC 2,5-5,0 mm Seproz UNA 272580 VdTUV 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			
As Welded	500 MPa (73 ksi)	620 MPa (90 ksi)	40 %
Stress Relieved 16hr 600°C (1112°F)	500 MPa (73 ksi)	640 MPa (93 ksi)	40 %

Typical Charpy V-Notch Properties

Testing Temperature	Impact Value
ISO	
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)
-60 °C (-76 °F)	40 J (30 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	N	Nb	Ferrite FN
0.04	1.7	0.4	10.2	19.5	0.07	0.61	6

Deposition Data

Diameter	Current	Voltage	Number of electrodes/ kg weld metal	Burn-off Time/ Electrode	Deposition Efficiency %	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11.8 in.)	55-80 A	25 V	98	42 sec	60 %	0.9 kg/h (2.0 lb/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	75-110 A	23 V	49	64 sec	62 %	1.2 kg/h (2.6 lb/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	80-150 A	24 V	33	70 sec	61 %	1.6 kg/h (3.5 lb/h)
5.0 x 350.0 mm (0.197 x 13.8 in.)	150-200 A	23 V	21	76 sec	61 %	2.3 kg/h (5.1 lb/h)