

OK Autrod NiCu-7

A continuous solid nickel based electrode alloyed with 30 % Cu for welding of base materials of the same type. Can also be used to join these alloys to steel. The weld metal has good resistance to flowing seawater and has high strength and toughness over a rather wide temperature range. This alloy also has good resistance to hydrofluoric acid, sulfuric acid, alkalis etc. Can be used for welding of similar types of base materials which are age-hardenable with small additions of Ti and Al. Usable for cladding on carbon steel with an intermediate layer of OK Autrod Ni-1.

Specifications

Classifications	SFA/AWS A5.14 : ERNiCu-7 EN ISO 18274 : S Ni 4060 (NiCu30Mn3Ti)
Approvals	VdTÜV : 12660 (MV) VdTÜV : 12668 (FP)

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

Alloy Type	Alloyed nickel (Ni + 30 % Cu + 2 % Ti + 2 % Fe)
Shielding Gas	I3 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	300 MPa (44 ksi)	520 MPa (75 ksi)	35 %

Typical Wire Composition %

C	Mn	Si	Ni	Al	Cu	Ti	Fe	Nb+Ta
0.03	3	0.3	64	0.03	28	2	2	< 0.5

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Al	Cu	Nb	Ti
0.01	3.3	0.06	0.001	0.001	64	0.1	30	0.009	1.8

Typical Weld Metal Analysis %

Ta	Fe	Nb+Ta
0.003	0.7	0.012

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm (0.047 in.)	160-280 A	24-30 V	6.0-10.0 m/min (236-394 in./min)	3.6-6.0 kg/h (7.9-13. lbs/h)
1.6 mm (1/16 in.)	200-350 A	25-32 V	4.0-8.0 m/min (157-315 in./min)	4.3-8.6 kg/h (9.5-19. lbs/h)