OK Autrod 312

A continuous, solid, corrosion-resistant, chromium-nickel wire for welding stainless steels of the 29% Cr, 9% Ni types. OK Autrod 312 has good oxidation resistance at high temperatures due to its high content of Cr. The alloy is widely used for joining dissimilar steels, especially if one of the components is fully austenitic, and steels that are difficult to weld, i.e. machine components, tools and austenitic-manganese steels.

Classifications Wire Electrode:	EN ISO 14343-A:G 29 9, SFA/AWS A5.9:ER312

Alloy Type:	Ferritic-austenitic (29 % Cr - 9 % Ni)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As welded	610 MPa	770 MPa	20 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As welded	20 °C	50 J

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	Cu
0.10	1.6	0.4	8.8	30.7	0.20	0.14

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm	50-140 A	16-22 V	3,4-11 m/min	0,8-2,7 kg/h
1.0 mm	80-190 A	16-24 V	2,9-8,4 m/min	1,1-3,1 kg/h
1.2 mm	180-280 A	20-28 V	4,9-8,5 m/min	2,6-4,5 kg/h