

OK Autrod 310

A continuous solid corrosion resisting chromium-nickel wire for welding of heat resistant austenitic steels of the 25% Cr, 20% Ni types. OK Autrod 310 has a good general oxidation resistance especially at high temperatures due to its high Cr content. The alloy is fully austenitic and therefore sensitive to hot cracking. Common applications are industrial furnaces and boiler parts as well as heat exchangers.

Specifications

Classifications	EN ISO 14343-A : G 25 20 SFA/AWS A5.9 : ER310
Approvals	CE : EN 13479 UKCA : EN 13479

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

Alloy Type	Fully austenitic (25 % Cr - 20 % Ni)
Shielding Gas	M12, M13 (EN ISO 14175)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
As Welded	390 MPa	590 MPa	43 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
As Welded	20 °C	175 J
As Welded	-196 °C	60 J

Typical Wire Composition %

C	Mn	Si	Ni	Cr
0.10	1.6	0.4	20.7	25.8

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr
0.10	1.7	0.4	0.015	0.010	20	25

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
0.8 mm	50-140 A	16-22 V	3.4-11.0 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
1.6 mm	230-350 A	24-28 V	3.2-5.5 m/min	3.0-5.2 kg/h