

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)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	390 MPa (57 ksi)	590 MPa (86 ksi)	43 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	20 °C (68 °F)	175 J (130 ft-lb)
As Welded	-196 °C (-321 °F)	60 J (44 ft-lb)

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	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm (0.030 in.)	50-140 A	16-22 V	3.4-11.0 m/min (134-433 in./min)	0.8-2.7 kg/h (1.8-6.0 lbs/h)
1.0 mm (0.040 in.)	80-190 A	16-24 V	2.9-8.4 m/min (114-331 in./min)	1.1-3.1 kg/h (2.4-6.8 lbs/h)
1.2 mm (0.047 in.)	180-280 A	20-28 V	4.9-8.5 m/min (193-335 in./min)	2.6-4.5 kg/h (5.7-9.9 lbs/h)
1.6 mm (1/16 in.)	230-350 A	24-28 V	3.2-5.5 m/min (126-217 in./min)	3.0-5.2 kg/h (6.6-11. lbs/h)