

OK Autrod 308L

A continuous solid corrosion resisting chromium-nickel wire. The alloy has a low carbon content which makes this alloy particularly recommended where there is a risk of intergranular corrosion. The alloy is widely used in the chemical and food processing industries as well as for pipes, tubes and boilers. For joining of stainless steels of 18% Cr - 8% Ni-type and Nb-stabilized steels of the same type if the service temperature will not exceed 350°C.

Specifications

Classifications	EN ISO 14343-A : G 19 9 L SFA/AWS A5.9 : ER308L Werkstoffnummer : ~1.4316
Approvals	CE : EN 13479 UKCA : EN 13479

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

Alloy Type	Austenitic (with approx. 8 % ferrite) 19% Cr - 9% Ni - Low C
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Tensile Properties

Conditional Statement	Yield Strength	Tensile Strength	Elongation
As welded	450 MPa (65 ksi)	620 MPa (90 ksi)	36 %
Tested at 350°C (662°F).			
As welded	370 MPa (54 ksi)	490 MPa (71 ksi)	25 %

Typical Charpy V-Notch Properties

Testing Temperature	Impact Value
20 °C (68 °F)	110 J (81 ft-lb)
-60 °C (-76 °F)	90 J (66 ft-lb)
-196 °C (-321 °F)	60 J (44 ft-lb)

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	Cu	N	FN WRC-92
0.02	1.9	0.4	9.8	19.8	0.20	0.15	0.05	9

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.020	1.6	0.4	0.015	0.015	10.0	20.0	0.05	0.05

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm (.030 in.)	55-160 A	15-24 V	4.0-17.0 m/min (157.5-669 in./min)	0.9-4.1 kg/h (2.0-9.0 lbs/h)
0.9 mm (.035 in.)	55-160 A	15-24 V	4.0-17.0 m/min (157.5-669 in./min)	0.9-4.1 kg/h (2.0-9.0 lbs/h)
1.0 mm (.040 in.)	80-240 A	15-28 V	4.0-16.0 m/min (157.5-630 in./min)	1.5-6.0 kg/h (3.3-13.2 lbs/h)
1.14 mm (.045 in.)	80-240 A	15-28 V	4.0-16.0 m/min (157.5-630 in./min)	1.5-6.0 kg/h (3.3-13.2 lbs/h)
1.2 mm (.045 in.)	100-300 A	14-28.5 V	3.0-14.0 m/min (118-551 in./min)	1.6-7.5 kg/h (3.5-16.5 lbs/h)