

OK Autrod 16.95

A continuous solid corrosion resisting chromium-nickel-manganese wire for welding of austenitic stainless alloys of 18% Cr, 8% Ni, 7% Mn types. OK Autrod 16.95 has a general corrosion resistance similar to that of the corresponding parent metal. The higher silicon content improves the welding properties, such as wetting. The product is a modified variant of ER307, basically with a higher Mn content to make the weld metal less sensitive to hot cracking. When used for joining dissimilar materials the corrosion resistance is of secondary importance. The alloy is used in a wide range of applications across the industry such as joining of austenitic, manganese, work hardenable steels as well as armourplate and heat resistant steels.

Specifications

Classifications	EN ISO 14343-A : G 18 8 Mn SFA/AWS A5.9 : ER307 (mod) Werkstoffnummer : ~1.4370
Approvals	CE : EN 13479 DB : 43.039.10 UKCA : EN 13479 VdTÜV : 05420

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

Alloy Type	Austenitic (18 % Cr - 8 % Ni - 7 % Mn)
Shielding Gas	M12, M13 (EN ISO 14175)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
As Welded	450 MPa	640 MPa	41 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
As Welded	20 °C	95 J

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	Cu
0.08	7.0	0.9	8.1	18.7	0.20	0.10

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.1	6.5	1	0.020	0.010	8.0	18.5	0.1	0.1

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
0.8 mm	55-160 A	15-24 V	4.0-17.0 m/min	1.0-4.1 kg/h
0.9 mm	65-220 A	15-28 V	3.5-18.0 m/min	1.1-5.4 kg/h
1.0 mm	80-240 A	15-28 V	4.0-16.0 m/min	1.5-6.0 kg/h
1.2 mm	100-300 A	15-29 V	3.0-14.0 m/min	1.6-7.5 kg/h
1.6 mm	230-375 A	23-31 V	5.5-9.0 m/min	5.2-8.6 kg/h