

OK Autrod 410NiMo

A continuous solid welding wire of 12% Cr, 4.5% Ni, 0.5% Mo type. OK Autrod 410NiMo is used for welding of similar martensitic and martensitic-ferritic steels in different applications such as for instance hydro turbines.

Classifications Wire Electrode	EN ISO 14343-A : G 13 4
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Alloy Type	Martensitic-ferritic (12 % Cr - 4.5 % Ni - 0.5 % Mo)
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	860 MPa (125 ksi)	1050 MPa (152 ksi)	13 %
Stress Relieved 2hr 600°C (1112°F)	850 MPa (123 ksi)	900 MPa (131 ksi)	17 %
Stress Relieved 8hr 600°C (1112°F)	750 MPa (109 ksi)	850 MPa (123 ksi)	20 %

Typical Charpy V-Notch Properties

Testing Temperature	Impact Value
0 °C (32 °F)	35 J (26 ft-lb)
-20 °C (-4 °F)	30 J (22 ft-lb)
0 °C (32 °F)	70 J (52 ft-lb)
-20 °C (-4 °F)	55 J (40.5 ft-lb)
0 °C (32 °F)	75 J (55 ft-lb)
-20 °C (-4 °F)	75 J (55 ft-lb)

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	Cu
0.02	0.5	0.4	4.2	12.4	0.6	0.1

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 lb/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 lb/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 lb/h)

Recommended Welding Parameters

Wire Diameter

0.9 mm
(0.035 in.)