

Exaton NiCrCoMo-1



NiCrCoMo-1 is a NiCrCoMo alloy of type alloy UNS N06617. The weld metal provides a combination of excellent metallurgical stability and strength in short and long term exposure to temperatures up to 1150°C (2100°F).

NiCrCoMo-1 is suitable for joining heat resistant nickel alloys, heat resistant austenitic and cast alloys such as: UNS N08810 (1.4958), UNS N08811 (1.4959), UNS N06617 (2.4663).

Typical applications are high temperature heat exchanger valves, furnace tubing in the petrochemical industry, radiant heat tubes, gas turbines, components subjected to high temperatures in the chemical processing industry and components for power plants.

Classifications	SFA/AWS A5.11 : ENiCrCoMo-1 EN ISO 14172 : E Ni 6117
Welding Current	DC+
Alloy Type	Ni-based CrCoMo
Coating Type	Basic

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	530 MPa (77 ksi)	770 MPa (112 ksi)	43 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
ISO		
As Welded	20 °C (68 °F)	70 J (52 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Al	Cu
0.07	1	0.4	0.003	0.006	52	24	9	0.15	0.01

Typical Weld Metal Analysis %

Ti	Co	Fe	Nb+Ta
0.2	12	0.8	0.07

Deposition Data

Diameter	Current	Number of electrodes/ kg weld metal	Burn-off Time/ Electrode	Deposition Efficiency %	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11.8 in.)	60-85 A	103	41 sec	66 %	0.9 kg/h (2.0 lb/h)
3.2 x 300.0 mm (1/8 x 11.8 in.)	80-110 A	56	44 sec	69 %	1.2 kg/h (2.6 lb/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	100-140 A	30	71 sec	67 %	2.2 kg/h (4.9 lb/h)