

Exaton NiCrMo-4



NiCrMo-10 is a low carbon nickel-chrome-molybdenum alloy of type alloy C-276. It is a versatile alloy with excellent wet corrosion resistance in oxidizing and especially in reducing media. However, in oxidizing chloride containing environments alloy UNS N06022 (2.4602) is preferred where NiCrMo-10 is a better matching welding consumable.

NiCrMo-10 is used for joining alloy UNS N10276 (2.4819) and other nickel-chrome-molybdenum alloys. It can also be used for dissimilar metal joining of nickel alloys, stainless steels and low-alloy steels.

Typical applications for NiCrMo-10 are found in cryogenics, components in pulp and paper plants such as bleaching vessels, flue gas scrubber systems, components in sour-gas service, sulfuric acid coolers, chlorine gas, hypochlorite and chlorine dioxide atmosphere. NiCrMo-10 is also used in combustion-resistant components for high pressure oxygen service.

Classifications	SFA/AWS A5.11 : ENiCrMo-4 EN ISO 14172 : E Ni 6276
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Welding Current	DC+
Alloy Type	Ni-based CrMo
Coating Type	Basic

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	520 MPa (75 ksi)	780 MPa (113 ksi)	30 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
ISO		
As Welded	20 °C (68 °F)	90 J (67 ft-lb)
As Welded	-196 °C (-321 °F)	70 J (52 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
0.01	0.5	0.2	0.001	0.006	56	15	16.0	0.01	0.01

Typical Weld Metal Analysis %

Co	Fe	W
0.05	5	3.5

Deposition Data

Diameter	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.)	103	41 sec	66 %	0.9 kg/h (2.0 lb/h)
3.2 x 300.0 mm (1/8 x 11.8 in.)	56	44 sec	69 %	1.2 kg/h (2.6 lb/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	30	71 sec	67 %	2.2 kg/h (4.9 lb/h)