

Exaton Ni59

Exaton Ni59 is a nickel-chrome-molybdenum alloy of type alloy 59. It is a versatile alloy with excellent wet corrosion resistance for the most demanding applications. It combines excellent corrosion resistance in oxidizing and reducing media, has excellent resistance in chloride containing media and to localized corrosion environments. Exaton Ni59 has excellent thermal stability compared to other common nickel alloys and has therefore outstanding resistance to intermetallic precipitation during welding. Applications for Exaton Ni59 are found in aggressive and contaminated corrosive media including scrubbers for flue gas desulfurisation (FGD), chemical process plants and in severe offshore and petrochemical environments.

Exaton Ni59 is used for joining matching alloys or dissimilar joining to other nickel alloys such as UNS N10276 (2.4819), type UNS N06022 (2.4602), UNS N06625 (2.4856) and N08825 (2.4858). It provides strong, tough, Nb free weld metal for dissimilar welds in super-austenitic and super-duplex stainless steel joints or combinations of these with nickel alloys. Exaton Ni59 can be used for surfacing.

Applications for Exaton Ni59 are found in contaminated mineral acid environments such as sulfuric acid, hydrochloric acid, phosphoric acid, nitric acid etc. Components in sulfuric acid coolers, digesters and bleachers. Chemical, petrochemical, marine, pharmaceutical, energy production and pollution control.

Exaton Ni59 is approved in ISO15156/MR0175 (highest test level VII in sour-gas environments).

Exaton Ni59 is used to weld most of the nickel alloys such as alloy 59, C-22, C-276 etc. It can also be used for joining nickel alloys with duplex stainless steels, super duplex stainless steels and hyper duplex stainless steels. It is used for MIG/MAG welding.

Классификация сварочной проволоки	SFA/AWS A5.14 : ERNiCrMo-13 EN ISO 18274 : S Ni 6059 (NiCr23Mo16) Werkstoffnummer : 2.4605
Одобрения	CE EN 13479 VdTUV 09183

Одобрения на материалы выдаются с привязкой к заводу изготовителю. Подробную информацию можно получить в представительствах ESAB.

Механические свойства при растяжении

Состояние	Предел текучести	Предел прочности при растяжении	Удлинение
После сварки	470 MPa	750 MPa	45 %

Типичные свойства образца с V-образным надрезом по Шарпи

Состояние	Температура испытания	Работа удара
После сварки	20 °C	170 J
После сварки	-196 °C	130 J

Хим. состав проволоки

C	Mn	Si	S	P	Ni	Cr	Mo	Al	Co
<=0.01	<=0.5	<=0.1	<=0.01	<=0.015	59	23	15.5	0.3	<=0.3

Хим. состав проволоки

Fe
<=0.5

Данные наплавки

Диаметр проволоки	Current	Voltage	Wire Feed Speed
1.2 mm	150-260 A	24-29 V	3.0-10.0 m/min
1.6 mm	230-350 A	25-30 V	3.0-5.0 m/min