

Solid Wire Electrode for Submerged Arc Welding

BA-WIRE 625

Classification: EN ISO 18274 – S Ni 6625
SFA-5.14 – ERNiCrMo-3

Typical analysis and chemical composition acc. to EN ISO 18274 and AWS A5.14: (Weight Percent)

Wire electrode	Ni	Si	C	Cr	Mn	Ti	Fe	Nb	Al	Mo	S	P	Cu total
Typical analysis BA-WIRE 625	Bal.	0.2	< 0.1	22.0	0.2	0.1	1.0	3.5	0.1	9.0	0.010	0.014	0.2
S Ni 6625 acc. to ISO 18274	> 58.0	0.5	0.1	20.0-23.0	0.5	0.4	5.0	3.0-4.2	0.4	8.0-10.0	0.015	0.020	0.5
ERNiCrMo-3 acc. to AWS A5.14	> 58.0	0.50	0.10	20.0-23.0	0.5	0.40	5.0	Nb+Ta 3.15-4.15	0.40	8.0-10.0	0.015	0.020	0.50

Application:

BA-WIRE 625 welding wire has been developed for welding INCONEL alloy 625, INCOLOY alloy 825, INCOLOY alloy 25-6MO, alloy 20, welding the clad side of joints in steel with nickel-chromium molybdenum alloys, cladding steel with nickel-chromium molybdenum weld metal, surfacing of mild steel and for dissimilar welding of stainless steels to nickel alloys and carbon steels. The weld metal is highly resistant to stress corrosion cracking and pitting. BA-WIRE 625 is recommended for applications with service temperature range from cryogenic to 540 °C.

Base Materials:

- INCONEL alloy 625, INCOLOY alloy 825, INCOLOY alloy 25-6Mo, alloy 20, 9 % nickel steels. 2.4856 NiCr22Mo9Nb, 2.4858 NiCr21Mo, 2.4816 NiCr15Fe, 1.4583
- X10CrNiMoNb18-12, 1.4876 X10NiCrAlTi32-20H, 1.4876 X10NiCrAlTi32-20, 1.4529 X1NiCrMoCuN25-20-7, X2CrNiMoCuN20-18-6, 2.4641 NiCr- 21Mo6Cu
- ASTM B 443, B 444, B 446 having UNS number N06625.

Suitable fluxes: BF 38, WP 380

Flux type suitability is strongly dependent on its application. In combination with the wire electrode the most suitable flux should match the requirements of the plate material as closely as possible under the existing welding conditions. Further information can be obtained from the technical flux data sheets.

Package forms:

Coils, spools, drums and spiders as standard package forms for SAW-wire electrodes, different package forms on request.

Diameter:

1.2 – 2.0 mm; sizes and tolerances acc. to ISO 544 and AWS A5.14.

Wire electrode surface:

Smooth finish free from surface defects and foreign matter.