

AX-625
AX-2.4831

Material-No.: 2.4831

Standards

EN ISO 18274:	S Ni 6625 (NiCr22Mo9Nb)
AWS A5.14:	ERNiCrMo-3

Properties

TIG-rod/solid wire for welding of same type and similar nickel-based alloys, cryogenic materials and dissimilar joints. Suitable for operating temperatures down to -196°C and up to +1000°C. Due to the risk of embrittlement between 600°C and 850°C, use in this temperature range should be avoided.

Cleanliness of the workpiece in the weld seam area is a prerequisite for a crack-free connection. A weld pool backing is recommended for thin plates and root seams. For V- and X-seams, opening angle at least 70°.

Important base materials / Important applications

NiCrMo-alloys like NiCr22Mo9Nb (2.4856), NiCr21Mo (2.4858), NiCr22Mo6Cu (2.4618), NiCr22Mo7Cu (2.4617), X1NiCrMoCuN25-20-7 (1.4529) and their joints with unalloyed, low-alloyed and high-alloyed steel/cast steel as well as for corrosion-resistant claddings. Cryogenic steels like X8Ni9 (1.5662) and dissimilar joints with operating temperatures above 300°C.

Inconel 625, NiCrofer 4221hMo, Hastelloy G, Hastelloy G3, Incoloy 800, UNS N06625, UNS N08825, UNS N08926, UNS N08904.

Typical composition of welding rod / solid wire in %

Ni	C	Cr	Mo	Mn	Si	Nb + Ta	Fe
Base	0,02	22	9,0	0,2	0,2	3,3	1,5

Mechanical properties of all-weld metal (typical values)

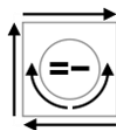
Yield strength R _{p0,2}	[MPa]	500
Tensile strength R _m	[MPa]	760
Elongation A (L ₀ = 5d ₀)	[%]	35
Impact work KV	[J]	110 at +20°C

Shielding gas: 100% Argon, PWHT: untreated

Operating data

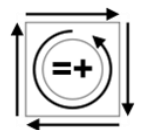
TIG:

Shielding gas: I1 (100%Argon)
acc. to ISO 14175



GMAW:

M12 (e.g. Ar+30%He+0,5%CO₂)
Ar+28%He+2%H₂+0,05%CO₂



Pulse arc technique is recommended for welding of solid wires.

Approvals

(Please ask for current scope)

Packaging and available sizes

Spools	Ø mm	0,8	1,0	1,2	1,6		
Rods	Ø mm x 1000mm	1,6	2,0	2,4	3,2		

Other dimensions on request.