

AX-82
AX-2.4806

Material-No.: 2.4806

Standards

EN ISO 18274:	S Ni 6082 (NiCr20Mn3Nb)
AWS A5.14:	ERNiCr-3

Properties

TIG-rod/solid wire for welding of nickel-based alloys, creep resistant steels, cryogenic materials and dissimilar joints. Suitable for operating temperatures down to -196°C and up to +900°C.

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

NiCrFe-alloys like NiCr15Fe (2.4816), NiCr23Fe (2.4851), creep resistant austenitic steels like X10NiCrAlTi32-20 (1.4876) and X5NiCrAlTi31-20 (1.4958), cryogenic steels like X8Ni9 (1.5662) and dissimilar joints with operating temperatures above >300°C and/or post-weld heat treatment. Incoloy 800, Incoloy 800H, Incoloy 800HT, UNS N06600, UNS N06601, UNS N 06075, UNS N07080, UNS N10665, UNS N08800.

Typical composition of welding rod / solid wire in %

Ni	C	Cr	Fe	Mn	S	Si	Nb + Ta
Base	0,02	20	1,0	3,0	<0,1	0,2	2,5

Mechanical properties of all-weld metal (typical values)

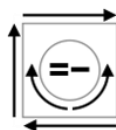
Yield strength R _{p0,2}	[MPa]	410
Tensile strength R _m	[MPa]	640
Elongation A (L ₀ = 5d ₀)	[%]	40
Impact work KV	[J]	150 at +20°C

Shielding gas: 100% Argon, PWHT: untreated

Operating data

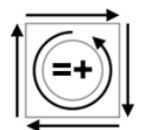
TIG:

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.