AX-FeNi

Standards

EN ISO 1071:	S C NiFe-1

Properties

Nickel-iron welding rod/solid wire for joint and build-up welding on grey cast iron grades with lamellar and nodular graphite, such as blowhole removal on castings, repair welding of engine blocks, machine tool frames, gears, reducers, pump bodies, castings and valve bodies. The weld metal (55% Ni) is homogeneous and highly crack resistant. Also suitable for dissimilar joints with unalloyed and high-alloyed steel, copper and nickel alloys.

Important base materials / Important applications

Ferritic and austenitic cast iron with nodular graphite as well as dissimilar joints with steel, copper and nickel alloys.

Typical composition of welding rod / solid wire in %

C	Si	Mn	Ni	Fe
0.02	0.1	0.8	Base	42

Mechanical properties of all-weld metal (typical values)

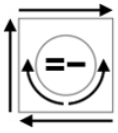
Yield strength $R_{p0,2}$	[MPa]	>300
Tensile strength R_m	[MPa]	>500
Elongation A ($L_0 = 5d_0$)	[%]	>25
Hardness	[HB]	200

Shielding gas: 100% Argon, PWHT: untreated

Operating data

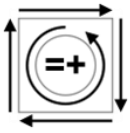
TIG:

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



GMAW:

M12 (e.g. Ar+30%He+0,5%CO_2)
Ar+28%He+2%H_2+0,05%CO_2



The welding area must be metallically bright. Mixing should be kept as low as possible.

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	1,0	1,2	1,6	2,0	2,4	3,2

Other dimensions on request.