

Metallurgy & Machinery (metal construction, equipment parts, rollers, stacks, bolts)

Oil & Gas (piping and tubing, valves, fittings, swivel joints, boiler)

Chemical & Paper industry (separators, cracking units, coke drums, absorbers, mixers, scrubbers)

ERNi – 1 (Filler metal 61, NiTi)

Solid Welding wire in rod For TIG and MIG welding of pure nickel alloys acc. EN 13479

Main Applications:

High nickel alloy with Al and Ti for sound deposits Can be used for overlay on steel as well as repairing cast iron castings and for dissimilar joints between nickel or nickel alloys to stainless or ferritic steels

Standard specifications:

Alloy name*	Product forms	AWS		UNS	
ERNi-1	MIG/TIG/SAW welding wire or rod	A5.14	ERNi-1	N02061	2.4155

Is used for gas-tungsten-arc, gas-metal-arc, and submerged-arc welding of pure Nickel. It is also used for surfacing of steel. The reaction of titanium with carbon maintains a low level of free carbon and enables the filler metal to be used with pure Nickel. The weld metal has good corrosion resistance, particularly in alkalies

Chemical Composition: acc. AWS 5.14

	Alloy name	Ni% (min)	Cu%	Ti%	P%	Mn%	Fe%	C% (max)	Si% (max)	Al% (max)	S %
AWS	ERNi-1	93	0.25	2.0	0.03	1.0	1.0	0.15	0.75	1.5	0.015
VZPS	ERNi-1	93	0.25	2.0	0.03	1.0	1.0	0.15	0.75	1.5	0.015

*Or under customer needs

Mechanical properties:

Tensile strength: min 380-460 MPa (55-65 psi)

Yield strength: 255 MPa (37 psi)

Elongation: 28%

Dimensions:

Product	Diameter, mm	Length, mm	Packing
Welding wire (MIG)	0.8, 1.0, 1.2, 1.6, 2.0, 2.4, 2.5, 3.2	–	S300/K300
Welding rods (TIG)	2.0, 2.5, 3.2, 4.0, 5.0	915 – 1000	Box
Electrode core wire	2.0, 2.5, 3.20, 3.25, 4.0, 5.0	250, 300, 350, 400, 450, 500	Box

** Or lengths under your needs

Condition of Supply:

Binary Nickel-Iron (Ni-Fe) and Ni based complex welding alloys are supplied in welding rod and wires in standard length or length up to the consumers' request. For normal service conditions, the chemical compositions are available in various Ni contents according to the most of American and European standards.