

Classifications

EN ISO 636-A	EN ISO 636-B	AWS A5.28
W 46 8 W2Ni2	W 55A 8U WN5	ER80S-Ni2

Characteristics and typical fields of application

Ni-alloyed wire and rod for welding of low temperature fine grained structural steels, cryogenic steels for pipeline, tank and boiler constructions. Very good ductility at low temperatures. High quality joints for tank- and plant constructions.

Base materials

Cryogenic constructional steels and Ni-steels; cryogenic steels for ship building;
12Ni14, X12Ni5, 13MnNi6-3, 15NiMn6, S275N-S460N, S275NL-S460NL, S275M-S460M, S275ML-S460ML, P275NL1-P460NL1, P275NL2-P460NL2
ASTM A 203 Gr. D, E; A 333 Gr. 3; A334 Gr. 3; A 350 Gr. LF1, LF2, LF3; A 420 Gr. WPL3, WPL6; A 516 Gr. 60, 65; AA 529 Gr. 50; A 572 Gr. 42, 65; A 633 Gr. A, D, E; A 662 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 738 Gr. A; A 841 A, B, C

Typical analysis of the TIG rods (wt.-%)

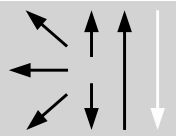
	C	Si	Mn	Ni
wt-%	0.08	0.60	1.00	2.35

Mechanical properties of all-weld metal

Heat-treatment	Shielding gas	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J		
		MPa	MPa	%	+20 °C	-80 °C	-90 °C
aw	I1	480	620	24	130	47	
sr	I1	440	540	26	140	70	47

sr = (580 °C / 4 h)

Operating data

	Polarity: DC (-)	Shielding gas: (EN ISO 14175) I 1-3	Marks: ✦ W 2 Ni 2 / ER80S-Ni2	ø mm 2.4 3.0	L mm 1000 1000
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Approvals

TÜV (07500), CE