

Classifications

EN ISO 636-B

AWS A5.28

W 55A 8U N5

ER80S-Ni2

Characteristics and typical fields of application

Ni-alloyed copper coated GTAW rod, for unalloyed and Ni-alloyed fine grained construction steels. Tough, crack resistant weld deposit. Low temperature toughness to -80°C. For thin sheets and root pass welding.

Base materials

cryogenic constructional steels and Ni-steels, cryogenic steels for ship building

10Ni14, 12Ni14, 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 TIG rods (wt.-%)

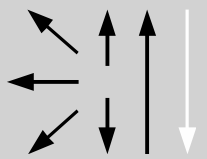
C	Si	Mn	Ni
0.08	0.6	1.0	2.4

Mechanical properties of all-weld metal

Condition	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	-60°C	-80°C
u	510 (≥ 470)	600 (550 – 680)	26 (≥ 20)	280	80	≥ 47

u untreated, as welded – shielding gas Argon

Operating data

	Polarity	Shielding gas:	Rod marking:	ø (mm)
	DC (-)	100% Argon	front: ✦ W2Ni2 back: ER80S-Ni2	2.0 2.4 3.0

Preheating, interpass temperature and post weld heat treatment as required by the base metal.

Approvals

TÜV (01081), BV, DNV GL, Equinor, NAKS, CE