

Classifications

EN ISO 14341-A	EN ISO 14341-B	AWS A5.28
G 50 6 M21 Z3Ni1 G 46 4 C1 Z3Ni1	G57A 6 M21 SZ G55A 4 C1 SZ	ER80S-G [ER80S-Ni1(mod.)]

Characteristics and typical fields of application

Union K 52 Ni is a Ni-alloyed solid wire electrode with excellent weld metal toughness at low temperatures.

Cryogenic steels for service temperatures down to -60 °C (-76 °F), fine grained structural steels up to S500; for crack-free tack welding and root pass welds of fine grained structural steels up to S1100QL (undermatching).

Base materials

EN 10028-3: P355NL2 – P460NL2
EN 10025-6: S500QL1
EN 120208-2: L290MB – L485MB
EN 10149-2: S355MC – S500MC
API5L: X 42 – X 70 (X 80)

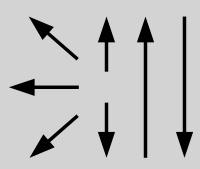
Typical analysis of solid wire (wt.-%)

	C	Si	Mn	Ni	Mo
wt.-%	0.06	0.7	1.5	0.9	0.08

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	-40 °C	-60 °C
aw	M21	500	590	24	150		47
aw	C1	460	560	24	140	47	

Operating data

	Polarity: DC (+)	Shielding gas: (EN ISO 14175): M21, C1	ø mm 1.0 1.2	Spool: B300 B300
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Approvals

ABS, DNV