Union RV Ni 1

Flux cored wire, low-alloyed, rutile-basic

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.29
T 50 6 1Ni P M 1 H5 T 46 4 1Ni P C 1 H5	T576T1-1MA-N1-H5 T555T1-1CA-N1-H5	E81T1-Ni1MJH4 E81T1-Ni1CJH4

Characteristics and typical fields of application

Union RV Ni 1 is a seamless copper coated rutile basic flux cored wire for the welding of cryogenic steels in all positions with mixed gas M21 and C1 acc. to EN ISO 14175. The wire is characterised by a low spatter affinity, a fine bead appearance, a good slag detachability and x-ray proof joints. The weld metal furthermore disposes of excellent mechanical properties as welded and annealed. The Ni-alloyed weld metal (acc. to stickelectrode E8018-C3) allows the application at petrochemical constructions and offshore technics.

The fast solidifying slag permits the manual and mechanized position welding with increased welding current. The welding of root passes in all positions with ceramic backing strips is proven.

Grundwerkstoffe

S185, S235J2G3, S275JR, S355J2G3, E295, P235GH, P265GH, P295GH, P355GH (HI, HII, 17 Mn 4, 19 Mn 6), P275N, P355N, P355NL2, P460N, S275N, S275NL, S355N, S355NL, S460N, L210, L240, L290, L360, L290NB, L360MB, L415MB, X42 – X70 / (API-5LX), GS-38 – GS-52, shipbuilding steels A – E, AH 32 – EH 36, A40 – F40

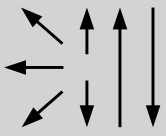
Typical analysis of all-weld metal (wt.-%)

	C	Si	Mn	P	S	Ni	Gas
wt-%	0.06	0.4	1.3	≤ 0.015	≤ 0.015	1.0	M21

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	±0 °C	–20 °C	–60 °C
aw	M21	500	560	22	120	90	70	47

Operating data



Polarity:	Shielding gas:	ø (mm)	Spool	Amps A	Voltage V
DC (+)	(EN ISO 14175) M21, C1 Consumption: 15 – 18 l/min	1.2 1.4 1.6	B300 B300 B300	160 – 300 180 – 350 180 – 375	22 – 32 23 – 32 24 – 33

Approvals

1.2 mm TÜV (11079), DB (42.132.40), GL, LR, ABS, DNV, CE
1.6 mm LR