diamondspark Ni1 RC

Flux cored wire, seamless, high strength, rutile type

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.36/SFA-5.36	AWS A5.36M/SFA-5.36M
T50 6 1Ni P M21 1 H5	T556T1-1M21A-N2-UH5	E81T1-M21A8-Ni1-H4	E551T1-M21A6-Ni1-H4

Characteristics and typical fields of application

Seamless rutile, Nickel alloyed, flux cored wire for single- or multilayer welding of Carbon, Carbon-Manganese steels and high strength steels with Argon-CO_2.
Main features: excellent weldability in all positions, excellent bead appearance, very low spatter losses, fast freezing and easy to remove slag. The exceptional mechanical properties of this wire even at low temperatures (-60°C), also after post weld heat treatment make it especially suitable for offshore applications. The wire is CTOD tested at -10°C. (14°F) This product can be used in sour gas applications. (HIC tested acc. to NACE TM-0284). Test values for SSC are available upon request.

Base materials

S355JR, S355J0, S355J2, S450J0, S355N-S460N, S355NL-S460NL, S355M-S460M, S355ML-S460ML, S460Q, S500Q, S460QL, S500QL, S460QL1, S500QL1, P355GH, P355NH, P420NH, P460NH, P355N-P460N, P355NH-P460NH, P355NL1-P460NL1, P355NL2-P460NL2, L245NB-L415NB, L245MB-L485MB, L360QB-L485QB, aldur 500Q, aldur 500QL, aldur 500QL1

ASTM A 350 Gr. LF2; A 516 Gr. 65, 70; A 572 Gr. 42, 50, 60, 65; A 573 Gr. 70; A 588 Gr. B, C, K; A 633 Gr. A, C, D, E; A 662 Gr. B, C; A 678 Gr. B; A 707 Gr. L2, L3; A 841 Gr. A, B, C; API 5 L X42, X52, X60, X65, X70, X52Q, X60Q, X65Q, X70Q

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

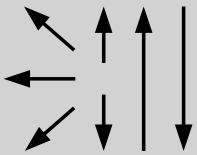
	Gas	C	Si	Mn	Ni
wt-%	M21	0.07	0.45	1.3	0.85

Mechanical properties of all-weld metal

Condition	Yield strength R_e	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	
	MPa	MPa	%	-40°C	-60°C
u	**550** (≥500)	**610** (560–690)	**25** (≥18)	**100**	**75** (≥47)
s	**520** (≥500)	**580** (560–690)	**29** (≥18)	**60**	

u untreated, as welded – shielding gas M21
s stress relieved 550 -600°C / 2h – shielding gas M21

Operating data



Polarity:	Shielding gases:	ø (mm)
DC (+)	(EN ISO 14175) M21; M33	1.0 1.2 1.4 1.6

Welding with standard GMAW power source possible

Approvals

TÜV, DB, DNV-GL, ABS,LR, BV, RINA, RS, CWB, CE