

Classifications

EN ISO 18276-A	EN ISO 18276-B	AWS A5.29 / SFA-5.29	AWS A5.36 / SFA-5.36
T 55 6 Z P M21 1 H5	T 62 6 T1-1M21A-N2M1-UH5	E91T1-GM-JH4	E91T1-M21AP8-G-H4

Characteristics and typical fields of application

Seamless rutile, Nickel-Manganese alloyed flux-cored wire for single- or multilayer welding of carbon, carbon-manganese steels and high strength steels with Ar-CO₂ shielding gas in as welded and post welded conditions.

Main features: excellent weldability in all positions, excellent bead appearance, very low spatter losses, fast freezing and easy to remove slag, exceptional mechanical properties at low temperatures, low content of diffusible hydrogen. Especially suitable for pressure vessels application which have to meet the NACE requirements. 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-S550Q, S460QL-S550QL, P355GH, P355NH, P420NH, P460NH, P355N-P460N, P355NH-P460NH, P355NL1-P460NL1, P355NL2-P460NL2, L360NB-L415NB, L360MB-L555MB, L360QB-L555QB, ASTM A 350 Gr. LF2; A 508 Gr.3 Cl2; A 516 Gr. 65, 70; A 533 Gr. B Cl.2; A 572 Gr. 50, 60, 65; A 573 Gr. 70; A 588 Gr. B, C, K; A 633 Gr. C, D, E; A 662 Gr. C; A 678 Gr. B; A 707 Gr. L2, L3; A 792 Gr. 550 Cl. 1; A 841 Gr. A, B, C; A 852;

Typical analysis

	Gas	C	Si	Mn	Ni	Mo
wt.-%	M21	0.05	0.35	1.6	0.85	0.2

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R _e	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy ISO-V KV J	
	MPa	MPa	%	-40 °C	-60 °C
u	610 (≥ 550)	680 (640 - 760)	22 (≥ 18)	100	80 (≥47)
s	565(≥ 550)	630(640 - 760)	23 (≥ 17)	60	55 (≥27)

u untreated, as welded – shielding gas M21 (Ar + 15 – 25 % CO₂)

s stress relieved 620°C / 2h - shielding gas M21 (Ar + 15 – 25 % CO₂)

Operating data

Polarity	DC +	Dimension mm
Shielding gas (EN ISO 14175)	M21: Ar + 15 – 25 % CO ₂	1.2

Approvals

CE