

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.29 / SFA-5.29	AWS A5.36 / SFA-5.36
T 50 6 1Ni P M21 1 H5	T 55 6 T1-1M21A-N2-UH5	E81T1-Ni1M-JH4	E81T1-M21A8-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-CO₂.

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) as well as the low content of diffusible hydrogen make it especially suitable for pipeline 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

API 5L: X60, X65, X70
EN 3183: L415, L450, L485

Typical analysis

	Gas	C	Si	Mn	Ni
wt.-%	M21	0.05	0.40	1.3	0.85

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	550 (≥ 500)	610 (560-690)	25 (≥ 18)	100	75 (≥ 47)

u untreated, as welded – 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

Welding with standard GMAW power source possible

Approvals

TÜV (19491), CE