

Classifications

EN ISO 18276-A	EN ISO 18276-B	AWS A5.36/SFA-5.36	AWS A5.36M/SFA-5.36M
T69 6 Z P M21 1 H5	T766T1-1M21A-G-UH5	E111T1-M21A8-GH4	E761T1-M21A6-GH4

Characteristics and typical fields of application

Seamless rutile, Nickel-Molybdenum alloyed, flux cored wire for single- or multilayer welding of high strength steels to be used with Argon-CO₂ shielding gas.

This core wire with its easy to remove and fast freezing slag shows excellent weldability in all positions, excellent bead appearance and very low spatter losses. The low diffusible hydrogen content of the pure weld metal (2-3ml/100g) and the outstanding mechanical properties at low temperatures (-60°C) make this wire perfect suitable for offshore applications and crane fabrication.

Base materials

S620Q, S620QL, S690Q, S690QL, S620QL1-S690QL1, alform plate 620 M, 700 M, aldur 620 Q, 620 QL, 620 QL1, aldur 700 Q, 700 QL, 700 QL1

ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type B, E, F, H, Q; A 709 Gr. HPS 100W

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

	Gas	C	Si	Mn	Ni	Mo
wt.-%	M21	0.07	0.40	1.70	2.00	0.15

Mechanical properties of all weld metal

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	%	-40°C	-60°C
u	770 (≥690)	800 (770–900)	19 (≥17)	75	60 (≥47)

u untreated, as welded – shielding gas M21

Operating data

	Polarity:	Shielding gas:	∅ (mm)
	DC (+)	(EN ISO 14175)	1.0
		M21	1.2
			1.4
			1.6

Welding with standard GMAW power source possible

Approvals

TÜV; DNV-GL; ABS; LR; BV; CE