

Classifications

EN ISO 18276-A	EN ISO 18276-B	AWS A5.29 / SFA-5.29
T 69 6 Z P M21 1 H5	T 76 6 T1-1M21A-G-UH5	E111T1-GM-JH4

Characteristics and typical fields of application

Seamless rutile, Nickel-Molybdenum alloyed, flux-cored wire for singleor multilayer welding of high strength steels with Argon-CO₂ shielding gas.

Main features: excellent weldability in all positions, excellent bead appearance, very low spatter losses, fast freezing and easy to remove slag. The good 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 off-shore, pipeline applications and crane applications

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

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

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

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy 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	DC+	Dimension mm	
	Shielding gas (EN ISO 14175)	M21		
				1.0
				1.2
			1.6	

Welding with standard GMAW-facilities possible

Approvals

TÜV (19045), ABS, DNV, BV, LR, CE