

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.28 / SFA-5.28
T 46 6 3Ni M M21 1 H5	T 55 6 T15-1M21A-N7-H5	E80C-Ni3 H4

Characteristics and typical fields of application

Seamless metalcored wire, for the welding of steels Nickel alloyed up to 3.5% with Ar-CO₂ shielding gas. Main features: excellent mechanical properties at low temperature (-80°C), excellent efficiency, good bead appearance and no spatter. Wire with very low presence of diffusible hydrogen (<3ml/100g weld metal). This wire can be used for applications where PWHT and normalized heat treatment conditions are required.

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, 11MnNi5-3; 13MnNi6-3; 15NiMn6; 10Ni14; 12Ni14

Typical analysis

	Gas	C	Si	Mn	Ni
wt.-%	M21	0.04	0.3	1.0	3.0

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

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		
	R _{p0.2} Mpa	R _m MPa	(L ₀ =5d ₀) %	-50°C	-60°C	-80°C
u	480 (≥470)	560 (550 - 680)	27 (≥20)	150	90 (≥ 47)	80
s	440	520	28		145	100
n	420 (≥355)	490 (470 - 630)	30 (≥22)	140 (≥ 47)	130	

u untreated, as welded – shielding gas M21

s stress relieved 620°C / 2h – shielding gas M21

n normalized 920°C / 4h – shielding gas M21

Operating data

	Polarity	DC +	Dimension mm
	Shielding gas (EN ISO 14175)	M21	1.2
			1.6

Welding with standard GMAW-facilities possible.

Approvals

CE