

**Classifications**

EN ISO 17632-A	EN ISO 17632-B	AWS A5.20 / SFA-5.20
T 46 4 B M21 3 H5	T 49 6 T5-0M21A-H5	E70T-5M JH4
T 42 4 B C1 3 H5	T 49 6 T5-0C1A-H5	E70T-5C JH4

**Characteristics and typical fields of application**

Seamless basic flux-cored wire for single or multilayer welding of carbon, carbon-manganese steels and similar steels, including fine grain steels with Argon-CO<sub>2</sub> shielding gas or pure CO<sub>2</sub>. Main features: excellent weldability in flat and horizontal position, smooth and bright bead, very low spatter losses, easy to remove slag and exceptional mechanical properties even at low temperatures. This wire is especially suitable for welding components of different material or as buffer layer for hardfacing applications.

**Base materials**

S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH- P355GH, P275NL1-P460NL1, P215NL, P265NL, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2- P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE240

Ship building steels: A, B, D, E, A 32-E 36

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C, E; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60, X65

**Typical analysis**

	Gas	C	Si	Mn
wt.-%	M21	0.07	0.55	1.4
wt.-%	C1	0.06	0.50	1.2

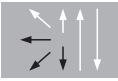
**Mechanical properties of all-weld metal - typical values (min. values)**

Condition	Yield strength R <sub>s</sub> MPa	Tensile strength R <sub>m</sub> MPa	Elongation A (L <sub>0</sub> =5d <sub>0</sub> ) %	Impact energy ISO-V KV J		
				20°C	-40°C	-60°C
u	500 (≥ 460)	610 (550-660)	28 (≥ 20)	160 (≥ 47)	100 (≥ 47)	80
u1	430 (≥ 420)	510 (500-640)	29 (≥ 20)	140	80 (≥ 47)	

u untreated, as welded – shielding gas M21

u1 untreated, as welded – shielding gas C1

**Operating data**

	Polarity	DC+	Dimension mm
	Shielding gas (EN ISO 14175)	M21 – M35, C1	1.2
			1.4
			1.6
			2.4

Welding with conventional or pulsed power sources using DC+

**Approvals**

TÜV (06218), DB (42.052.04), DNV, ABS, LR, BV, RINA, CE