

Classifications

AWS A5.18 / SFA A5.18	AWS A5.36 / SFA-5.36	EN ISO 17632-A	EN ISO 17632-B
E70C-6M H4	E71T15-M21A8-CS1-H4	T 46 6 M M21 1 H5	T 49 6 T15-1M21A-H5
	E71T15-C1A6-CS1-H4	T 42 5 M C1 1 H5	T 49 5 T15-1C1A-H5

Characteristics and typical fields of application

Seamless metal cored wire for single or multipass welding of Carbon, Carbon-Manganese and similar types of steels, including fine grain steels with Argon-CO₂ or pure CO₂ shielding gas. Features include: high yield, good weldability, excellent bead appearance, low spatter and exceptional mechanical properties at low temperatures (-70°F) in as welded condition or with post weld heat treatment. This wire is well suited for automated applications and for root pass welding of pipes and butt-joints. 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

Shipbuilding 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	0.06	0.80	1.60
wt.-%	C1	0.05	0.60	1.50

Mechanical properties of all-weld metal - typical values

Condition	Yield strength R _e	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy (ft.lbf)		
	ksi	ksi	%	-40°F	-60°F	-70°F
u	73	87	29	89		59
u1	67	81	30	59	44	
s	61	74	24	66		

u as welded – shielding gas M21

u1 as welded – shielding gas C1

s stress relieved 1150°F / 2h – shielding gas M21

Operating data

	Dimension
	0.045"
	0.052"
	1/16"

Approvals

TÜV, DB, DNV-GL, ABS, LR, BV, RINA, CWB, CE