VENVU 117

Seamless rutile cored wire, unalloyed

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.36	AWS A5.36M
T46 3 P M21 1 H5	T493T1-1M21A- H5	E 71T1-M21A0-CS2-H4	E491T1-M21A3-CS2-H4

Characteristics and typical fields of application

Seamless copper coated flux-cored wire for single or multipass welding of carbon and high strength steels with M21 (Ar/CO2) shielding gas. The welding deposit has excellent mechanical properties till -30°C. Main features are: excellent weldability in all positions, excellent bead appearance, low amount of spatter, fast freezing and easy to remove slag.
Seamless wire can provide very low diffusible hydrogen content in weld metal and avoid any moisture pick up.

Base materials

Steels up to a yield strength of 460 MPa (67 ksi)
S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GHP265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE240, ship building steel: 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 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 516 Gr. 55, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60, X65

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

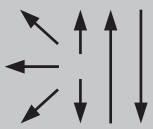
C	Mn	Si	P	S	GAS
0.05	**1.2**	**0,35**	**0,010**	**0,010**	**M21**

Mechanical properties of all-weld metal – typical values (minimum values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J	
	MPa	MPa	%	-20°C	-30°C
u	**530**	**600**	**25**	**110**	**70**

u: untreated, as welded – shielding gas Ar + 18% CO_2

Operating data



Polarity:	Shielding gases:	Redrying	ø (mm)
DC (+)	Argon + 15 – 25% CO_2 14 – 20 l/min	not necessary	1.2 1.4 1.6

Welding with standard GMAW-facilities possible.

Approvals

TÜV; DB; ABS; BV; DNV-GL; LR