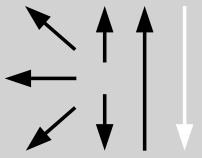


FOXcore C 9 MV MC

Metal cored wire, high-alloyed, creep resistant

Classifications									
EN ISO 17634-B			AWS A5.36/SFA-5.36			AWS A5.36M/SFA-5.36M			
T69T15-1G-9C1MV			E91T15-M12PY-B91-H4			E620T15-M12PY-B91-H4			
Characteristics and typical fields of application									
Metal cored wire for high temperature, creep resistant martensitic 9 % chromium steels in turbine and boiler fabrication and in the chemical industry. Especially designed for the ASTM steels T91 / P91. For optimised toughness values a welding technology should be applied which produces thin welding layers (approx. 2 mm), also a decisive influence on toughness values is given by the used shielding gas.									
Base materials									
Similar alloyed creep resistant steels 1.4903 X10CrMoVNb9-1, GX12CrMoVNbN9-1 ASTM A 335 Gr. P91, A 336 Gr. F91, A 369 Gr. FP91, A 387 Gr. 91, A 213 Gr. T91									
Typical analysis of all weld metal (wt.-%)									
	C	Si	Mn	Cr	Ni	Mo	V	Nb	N
wt.-%	0.10	0.3	0.6	9.0	0.7	1.0	0.2	0.05	0.04
Mechanical properties of all-weld metal									
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		
a	650 (≥ 565)		760 (620 – 760)		18 (≥ 17)		55 (≥ 32)		
a annealed 760 °C/3 h / furnace down to 300 °C / air – shielding gas Argon + 2.5 % CO ₂									
Operating data									
	Polarity: DC (+)		Shielding gas: Argon + 2.5 % CO ₂		ø (mm) 1.2	Amperage A 150 – 290		Voltage V 18 – 30	
Welding with conventional or pulsed power sources (preferably slightly trailing torch position, angle appr. 80°). Recommended stick out 15 – 20 mm and length of arc 3 – 5 mm. Preheating and interpass temperature 150 – 300 °C. After welding, the weld joint should cool down below 80 °C to finish the martensite transformation. In case of greater wall thickness or complex components the possibility of residual stresses must be considered. The following post weld heat treatment is recommended: annealing min 760 °C/2 h; heating and cooling rates below 550 °C max. 150 °C/h, >above 550 °C max. 80 °C/h.									
Approvals									
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