

AA R500

CATEGORY	FCAW Flux-Cored
TYPE	Seamless micro alloyed rutile cored wire with slag for M21
APPLICATIONS	Offshore, Shipbuilding, pressure vessels, orbital pipe work.
PROPERTIES	Very good modeling ability, therefore excellent all-position welding with higher currents. Use up to -60 °C (- 76 °F) .. Particularly suitable for MAG-orbital welding and for weldings on ceramics in all positions. Low spatter loss, and remarkable easy slag removal. CTOD tested at -20°C.

CLASSIFICATION	AWS	A5.29: E81T1-Ni1M-J H4 A5.28: E81T1-Ni1C-J H4 A5.36: E81T1-M21A8-Ni1-H4 A5.36: E81T1-C1A4-Ni1-H4
	EN ISO	17632-A: T 50 6 1Ni P M21 1 H5 17632-A: T 46 4 1Ni P C1 1 H5

SUITABLE FOR	Materials	DIN	EN	ASTM
	shipbuilding	A, B, D, AH 32 - EH 36	A, B, D, AH 32 - EH 36	Typical
	Unalloyed steels	S185 - S355	S185 - S355	A 106 / A 333
	boiler steels	P235GH, P355GH	P235GH, P355GH	A 516 / A 537
	pipe steels	P235T1/T2, P460NL2	P235T1/T2, P460NL2	A 455
	-	L210 - L480MB	L210 - L480MB	A 572
	Fine grain steels	S385, S460, S500(NL1,2)	S385, S460, S500(NL1,2)	A 572
	API-standard	X 42, X65, X 70	X 42, X65, X 70	-

APPROVALS	TÜV, Lloyds (5Y46), DNV (5Y46), CE approved
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WELDING POSITIONS:



WELD METAL ANALYSIS % (TYPICAL VALUES M21)

C	Mn	Si	Cr	Ni	Mo	P	S
0.05	1,3	0,5	-	0,8	-	<0.015	<0.015

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (MPa)	R _m (MPa)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	>500	560-690	>22		>90	>60	
SR	>460	520-670	>22		>70	>50	

AW: as welded / SR: stress relieved 580°C/2hr

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	type spool	kg / spool	kg / pallet
1,2	21-29	160-280	D-200	5	900
1,2	21-29	160-280	BS-300	16	1024

REDRYING TEMPERATURE	Not required
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GAS ACC. EN ISO 14175:	M21 / C1
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