

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.**

CLASSIFICATION

AWS	5.29: E81T1-Ni1M-J H4 5.29M: E551T1-Ni1M-J H4
EN ISO	17632-A: T 50(46)6(4) 1Ni P M(C)1 H5

SUITABLE FOR	Materials	DIN	EN	ASTM
	shipbuilding	A, B, D, E, AH 32 - EH 36	same	Typical
	Unalloyed steels	St 33, St 37-2 - St 52-3	S185 - S355-S460	A 258 / A 516
	boiler steels	H I, H III, 17Mn4, 19Mn5	P235GH, P355GH	A 662 / A 387
	pipe steels	St 35.8, St 45.8	P235T1/T2, P460NL2	A 738 / A 612
	-	StE 210.7 TM, StE 480.7 TM	L210 - L480MB	A 299
	Fine grain steels	StE 255 to StE 460	S355-S420-S500 (NL1,2)	-
	API-standard	X 42, X65, X 70	X 42, X65, X 70	-

APPROVALS TÜV, Lloyds (5Y46), DNV (5Y46), CE approved

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} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	>500	560-690	>22		>60	>47	
SR	>460	520-670	>22		>47	>47	

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

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	type spool / drum	kg / spool / drum	kg / pallet
1,2	21-29	160-280	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,6	23-32	190-350	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600

REDRYING TEMPERATURE Not required

GAS ACC. EN ISO 14175: M21