

AA R460

CATEGORY	FCAW Flux-Cored	
TYPE	Seamless micro-alloyed rutile flux-cored wire for CO2 and M21.	
APPLICATIONS	Shipbuilding, steel and vessel construction, mechanical engineering and pipe work.	
PROPERTIES	Excellent weld puddle manipulation due to fast freezing slag, superior out-of-position welding also at higher currents. Using temperature up to -40°C (- 40°F) . Particularly suited for MAG-orbital welding and all-position welding on ceramic backing. Extreme low spatter loss, easy slag removal and hydrogen content below 3 ml/100gr. even after long unconditioned storage.	
CLASSIFICATION	AWS	A 5.20: E71T-1M /1C-J H4 A 5.36: E71T1-M21 A4-CS1-H4 A 5.36: E71T-1C-A0-CS1-H4 F-No. 6
	EN ISO	17632-A: T 46 4 P M 1 H5 17632-A: T 46 2 P C1 1 H5 FM1

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	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 445.7 TM	L210 - L445MB	A 299
	Fine grain steels	StE 255 to StE 460	S235-S420-S460QL1	-
	API-standard	X 42, X60	X 42, X60	-

APPROVALS TÜV(12704) , Lloyds, DNV and CE approved

WELDING POSITIONS:



WELD METAL ANALYSIS % (TYPICAL VALUES FOR M21)

C	Mn	Si	Cr	Ni	Mo	P	S
0.05	1.3	0.5	-	-	-	<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	>460	530-680	>22		>60	>60	

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	spool type	kg / spool / drum	kg / pallet
1,0	19-26	140-230	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,2	22-29	160-290	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,6	23-33	180-350	K-300 / K-415 / Drum	16 / 25 / 300	1024 / 900 / 600
2,0	24-36	220-420	K-300 / K-415 / Drum	16 / 25 / 300	1024 / 900 / 600
2,4	24-38	240-480	K-300 / K-415 / Drum	16 / 25 / 300	1024 / 900 / 600

REDRYING TEMPERATURE Not required

