

## AA M500

**CATEGORY** FCAW Flux-Cored

**TYPE** Seamless metal cored wire without slag for M21

**APPLICATIONS** Crane, steel, vessel and apparatus construction, offshore, lifting, drilling platforms etc.

**PROPERTIES** Seamless metal cored wire with remarkable stable arc and no spatters. Excellent for use in automated welding applications such as orbital Mag or robotic welding. This wire offers a unique welding deposit with less than 1% nickel to full fill NACE requirements and cover more procedures upto 500N/mm<sup>2</sup> yield strength steels. AA M500 can also be used for constructions that needs post weld heat treatment after welding and still offers mechanical properties confirming 5Y46 class. Due to the seamless production process the hydrogen content is below 3ml/100gr weld metal even after long storage in unconditioned condition.

**CLASSIFICATION**

AWS	5.28: E 80C-Ni1H4
	5.28M: E55C-Ni1 H4
EN ISO	17632-A: T 50 6 1Ni M M 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-S485	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 500	S255 - S500 (NL1,2)	-
	API-standard	X 42, X65, X 70	X 42, X65, X 70	-

**APPROVALS** CE approved

**WELDING POSITIONS:**



**WELD METAL ANALYSIS % (TYPICAL M21)**

C	Mn	Si	Cr	Ni	Mo	P	S
0.05	1.3	0.7	-	0.9	-	<0.015	<0.015

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>p0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	>500	560-720	>26	>80	>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	14-26	70-230	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,2	14-30	90-300	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,6	17-34	120-380	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600

**REDRYING TEMPERATURE** Not required

**GAS ACC. EN ISO 14175:** M21