

AA M460

CATEGORY FCAW Flux-Cored

TYPE Seamless metal-powder cored wire without slag for M21

APPLICATIONS Steel construction, shipbuilding, pressure vessels, mechanical engineering, pipe work, offshore, crane building, heavy transport, lifting equipment etc.

PROPERTIES Seamless metal cored wire with remarkable stable arc and no spatters. Excelent for use in automated welding applications such as orbital Mag or robotic welding. This wire offers a unique approval class at most third parties that enables you to use only one wire to cover more procedures upto 460N/mm2 yield strenght steels. AA M460 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.

CLASSIFICATION

AWS	5.18: E 70C-6M H4
	5.18M: E48C-6M H4
EN ISO	17632-A: T 46 6 MM1H5

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, X65, X 70	X 42, X65, X 70	-

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

WELDING POSITIONS:



PURE WELD DEPOSIT WITH M21 MIXED GAS

C	Mn	Si	Cr	Ni	Mo	P	S
0.05	1,5	0,7	-	-	-	<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	550-650	>24	>100	>60	>47	
SR	>460	550-650	>24	>70	>55	>47	

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

WELDING PARAMETERS / PACKING

parameters			packing		
D (mm)	Voltage (V)	Current (A) DC+	Spools / Drums	kg / spools	Kg per pallet
1,0 mm	14-26	70-220	D-200 / KD-300 / POP	5 / 16 / 300	1200 - 1024 - 600
1,2 mm	14-31	90-330	D-200 / KD-300 / POP	5 / 16 / 300	1200 - 1024 - 600
1,6 mm	25-38	180-420	D-200 / KD-300 / POP	5 / 16 / 300	1200 - 1024 - 600

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: M21