

# Outershield® MC460VD-H

## Mild steel metal cored wire

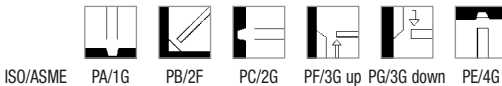
### Classification

AWS A5.18/A5.18M-01 : E70C-6M H4  
EN 758-97 : T 46 2 M M 1 H5

### General description

**Metal cored wire for welding with high efficiency**  
**Especially for vertical down welding in thin plate**  
**Excellent arc characteristics give outstanding operator appeal**  
**No slag, only silicon islands, less spatter**  
**Superior product consistency with optimal alloy control**

### Welding positions



### Current type/Shielding gas

DC- for all welding positions  
Ar+ (>5-25)% CO<sub>2</sub> (EN 439: M21)  
15-25 l/min

### Approvals

Shielding gas	ABS	BV	CTL	DNV	GL	LR
M21	3YSA,H5	SA3YMHHH	+	IIIMSH5	3YH5S	3S,3YSH5

### Chemical composition (w%), typical, all weld metal

Shielding gas	C	Mn	Si	P	S	H <sub>DM</sub> ml/100g
M21	0.05	1.25	0.6	0.015	0.015	3

### Mechanical properties, all weld metal

	Shielding gas	Condition	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V (J)
						-20°C -29°C
Required: AWS A5.18-01			min. 400	min. 480	min. 22	min. 27
EN 758-97			min. 460	530-680	min. 20	min. 47
Typical values	M21	AW	510	600	25	90 60

### Packaging and available sizes

Unit type	Net weight/unit (kg)	Diameter (mm)
		1.2
Plastic spool S200	4.5	X
Wire reel B300	15	X

Outershield® MC460VD-H: rev. EN 15

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## Materials to be welded

Steel	Code	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to EH40
Cast steel	EN 10213-2	G P 240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/ EN 10217-1	P235T1, P235T2, P275T1 P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10113-2	S275, S275, S355, S420
	EN 10113-3	S275M, S275ML, S355M, S355ML, S420M, S420ML

## Calculation data

Diameter (mm)	Electrical Stick-out (mm)	Wire feed speed (cm/min)	Current (A)	Arc Voltage (V)	Deposition Rate (kg/h)	kg Wire/ kg weld metal
1.2	15-20	800	250-280	26-30	3.4	1.10

## Welding parameters, optimum fill, shielding gas Ar + (>5 - 25%) CO<sub>2</sub>

Diameter (mm)	Current/ Voltage	Welding position			
		PB/2F	PG/3F down	PG/3G down	PE/4F
1.2	(A)	250 - 300	250 - 300	200-220	200-220
	(V)	26-30	26-30	21-24	23-25