

Outershield® MC710C-H

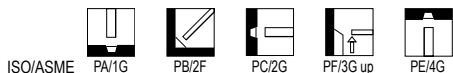
CLASSIFICATION

AWS A5.18/A5.18M : E70C-6C H4
 EN ISO 17632-A : T 46 3 M C 2 H5

GENERAL DESCRIPTION

All position high efficiency CO₂ shielded metal cored wire
 Excellent arc characteristics give outstanding operator appeal
 Few silicates and virtually no spatter, fast travel speed, excellent wire feeding
 Superior on primed or scaly plate, high resistance to porosity on primed plate
 Very good mechanical properties (CVN >47J at -30°C)
 Very low hydrogen (H_{DM} <5 ml/100g)
 Superior product consistency with optimal alloy control

WELDING POSITIONS



CURRENT TYPE

DC +
 C1 : Active gas 100%
 Amount : 15-25 l/min

APPROVALS

Shielding gas	ABS	BV	DNV	GL	LR	RINA	TÜV
C1	3YSAH5	3YH5	III YMS	3YH5	3YH5	3YSh5	+

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

Shielding gas	C	Mn	Si	P	S	H _{DM} ml/100 g
C21	0.05	1.35	0.6	0.015	0.023	3

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)		
						-20°C	-29°C	-30°C
Required: AWS A5.18			min. 400	min. 480	min. 22		min. 27	
EN ISO 17632-A			min. 460	530-680	min. 20			min. 47
Typical values	C1	AW	490	585	27	90		70

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.2
Unit : 4.5 kg plastic spool S200	X
15 kg spool B300	X

Outershield® MC710C-H: rev. EN 23

Outershield® MC710C-H

MATERIALS TO BE WELDED

Steel grades/Standard	Type
General structural steel	
EN 10025 part 2	S185, S235, S275, S355
Ship plates	
ASTM A131	Grade A, B, D, AH32 to EH36
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
Fine grained steel	
EN 10025 part 3	S275, S355, S420
EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML, S460

CALCULATION DATA

Diameter (mm)	Arc mode	Electrical stick-out (mm)	Wire Feed		Current (A)	Arc Voltage (V)	Deposition rate (kg/h)	kg wire/kg weldmetal
			Speed (cm/min)					
1.2	Short arc	15	230	100	15	1.1	1.10	
			320	120	16.5	1.4	1.10	
			400	150	17	1.9	1.10	
1.2	Spray arc	20	635	180	28-30	2.7	1.10	
			940	275	31-34	4.8	1.10	
			1420	340	35-38	6.8	1.10	

WELDING PARAMETERS, OPTIMUM FILL PASSES IN SHIELDING GAS Ar + (>15-25)% CO₂

Diameter (mm)	Welding positions				
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G
1.2	230-380A	230-380A	230-300A	100-170A	140-175A
	26-36V	26-36V	26-30V	16-17V	16-17V