

Outershield® 460C

Mild steel rutile cored wire

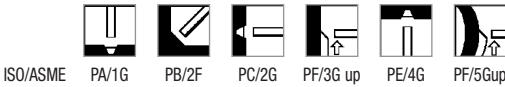
Classification

AWS A5.20/A5.20M : E71T-1-H8
EN 758 : T 46 2 P C 1 H10

General description

Rutile gas shielded flux cored wire for high quality welding
Excellent operator appeal due to superior welding characteristics
Specially developed for welding with 100% CO₂; smooth arc with low spatter
Suitable for welding coated plate with use of 100% CO₂
Also suitable for welding on ceramic backing
Good mechanical properties (CVN > 47J at -20°C)

Welding positions



Current type/Shielding gas

DC +
100% CO₂ (EN 439:C1)
15-25 l/min

Approvals

Shielding gas	ABS	BV	CRS	DNV	GL	LR	PRS	RINA	RMRS	CE
C1	3YSA H10	3YS H10	3YH10S	IIIVS(H10)	3YH10S	3YSH10	3YSH10	3YSH10	+	+

Chemical composition (w%). typical. all weld metal

Shielding gas	C	Mn	Si	P	S	H ₂ O ml/100g
C1	0.05	1.4	0.4	0.015	0.010	5

Mechanical properties, all weld metal

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V (J)		
						-18°C	-29°C	-30°C
Required:	AWS A5.20	AW	min. 400	min. 480	min. 22	min. 27 ¹⁾	min. 27 ²⁾	-30°C
	EN 758		min. 460	530-680	min. 20			
Typical values	C1		615	650	24			80

¹⁾: E71T-1 requirement

²⁾: E71T-9 requirement

Packaging and available sizes

Unit type	Net weight/unit (kg)	Diameter (mm)
Plastic spool S200 Vacuum sealed	4.5	X
Wire reel B300	15	X
Plastic spool S300 Vacuum sealed	15	X

Outershield® 460C: rev. EN 20

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Materials to be welded

Steel	Code	Type
General structural steel	EN 10025	S185, S235, S275
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
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	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	20	445	125	21-23	1.5	1.21
		572	150	23-25	1.9	1.21
		699	170	24-26	2.4	1.21
		826	185	25-28	2.9	1.21
		953	210	26-28	3.3	1.21
		1080	230	27-29	3.7	1.21

Welding parameters, optimum fill, shielding gas 100% CO₂ (C1)

Diameter (mm)	Current/ Voltage	Welding position							
		PA/1G	PB/2F	PC/2G	PF/3G up	PG/3G down	PE/4G	PF/3F up	PG/3Fdown
1.2	(A)	230-280	230-280	200-240	200-240	160-220	160-220	170-220	170-220
	(V)	26-32	26-32	25-30	25-28	23-26	23-26	26-28	26-28