

SAW Basic Fluxes Chromium-Molybdenum steels

OP CROMO F537 is a special agglomerated fluoride-basic type flux for welding heat-resistant steels after step cooling. Exceptionally low silicon pick-up and neutral behaviour in terms of manganese are typical of the metallurgical properties of this flux. It can be welded on DC+ and AC at up to 800 A. As the bulk density of this flux is low, so is the rate of consumption. The flux can be welded with the twin-wire process and can also be used for tandem welding with two or more wire electrodes. Controlled X and J factor to satisfy step cooling requirement. Damp flux should be re-dried at 300-350°C. Grain size according to EN 760: 2-20 and DIN 32522:2-20.

Wire	Classification	
OE CROMO S225	AWS	A5.23: F9P2-EB3R-B3R
OE CROMO S225V	AWS	A5.23: F9P2-EGR-GR
OE-S1CrMo5	AWS	A5.23: F8P0-EB6-B6
OE-CROMO S300V	AWS	A5.23: F9P2-EGR-GR
	EN	760: SA FB 1 55 AC H5

Wire	Approvals	Grades
OE-CROMO S225	TÜV	
OE-CROMO S225V	ABS	

see Appendix, Classification Society Approvals, for details pag. 521

Flux Analysis	
Al ₂ O ₃ + MnO	20 %
SiO ₂ + TiO ₂	15 %
CaO + MgO	40 %
CaF ₂	25 %

Basicity to Boniszewski ~ 2,6

Typical Applications

Wire	Materials
OE-S1CrMo5	ASME:A182 Gr. F5, A199 Gr. T5, A213 Gr.T5, A335 Gr.P5; 'A 336 Cl. F5, A 369 Gr. FP5, A 387 Gr.5, Cl 1 and 2 EN:12CrMo19-5, X12CrMo5
OE-CROMO S225	ASME:A387 Gr.22, Cl 1and 2, A 182 Gr.F 22, A 336 Gr.F22 EN:10CrMo9-10, 12CrMo9-10
OE-CROMO S225V	ASME:'SA 541 Gr 22 V, SA 336 F 22 V EN:12 Cr Mo V 9 10
OE-CROMO S300V	ASME:SA 832 Gr 21 V, SA 182 Gr F 3 V, SA 542 Tp C Cl 4 a EN:

Analysis of all-weld metal (Typical values in %)

Wire	C	Mn	Si	Cr	Ni	Mo	Nb	N	Cu
OE-S1CrMo5	≤ 0.12	≤ 1	≤ 0.50	5	-	0.50	-	-	-
OE-CROMO S225	≤ 0.12	≤ 1	≤ 0.25	2.20	-	1	-	-	-
OE-CROMO S225V	≤ 0.12	≤ 1	≤ 0.25	2.40	-	1	0.01	-	-
OE-CROMO S300V	≤ 0.12	≤ 1	≤ 0.25	3	-	1	0.01	-	-

All-weld metal Mechanical Properties

Wire	Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)
OE-S1CrMo5	PWHT 760°C x 2h	≥ 470	550 - 700	≥ 20
OE-CROMO S225	PWHT 690°C x 8h	≥ 540	620 - 750	≥ 18
OE-CROMO S225V	PWHT 710°C x 8h	≥ 540	620 - 750	≥ 18
OE-CROMO S300V	PWHT 710°C x 8h	≥ 540	620 - 750	≥ 18

All-weld metal Mechanical Properties - Cv

Wire	Heat Treatment	Charpy V Notch Impact Toughness (J)							
		+20	0	- 20	- 30	- 40	- 60	- 80	- 101
OE-S1CrMo5	PWHT	-	-	54 min	-	-	-	-	-
OE-CROMO S225	PWHT	-	100 min	100 min	-	50 min	-	-	-
OE-CROMO S225V	PWHT	-	-	27 min	-	-	-	-	-
OE-CROMO S300V	PWHT	-	-	100 min	-	-	-	-	-

Packaging data

25kg heavy duty sealed polythene sacks
25kg Dry Bag packaging on demand

Further forms of delivery on request.

Current condition

DC+; AC