

OP CROMO F537 is a special agglomerated fluoride-basic type. Specially designed for the welding of creep resistant steels 2,25Cr-1Mo-0,25V and 2,25Cr-1Mo with main focus on maximum toughness values at low temperatures and high purity of the weld metal. Weld metal deposited with OE-CROMO S225 shows no reduction in toughness after "Step Cool" heat treatment and therefore the weld metal is not sensitive to "Temper Embrittlement". The X-factor and J factor are very low. 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.

All weld metal creep test results have been performed, which allows the calculation of the wall thickness of the component, based on the properties of the base metal for operating temperatures up to 550°C.

To reach optimal toughness values welding should be performed on AC-polarity. OP CROMO F537 can be used in tandem, twin-arc and multi-wire applications.

Damp flux should be re-dried at 300-350°C. Grain size according to EN-ISO 14174: 2-20.

Classification		
	EN ISO	14174: SA FB 1 55 AC H5
OE-S1 CrMo5	AWS	A5.23: F8P0-EB6-B6
OE-CROMO S225	AWS	A5.23: F9P2-EB3R-B3R
OE-CROMO S225V	AWS	A5.23: F9P2-EGR-GR

Flux Main Components	
CaO + MgO	40 %
CaF2	25 %
Al2O3 + MnO	20 %
SiO2 + TiO2	15 %

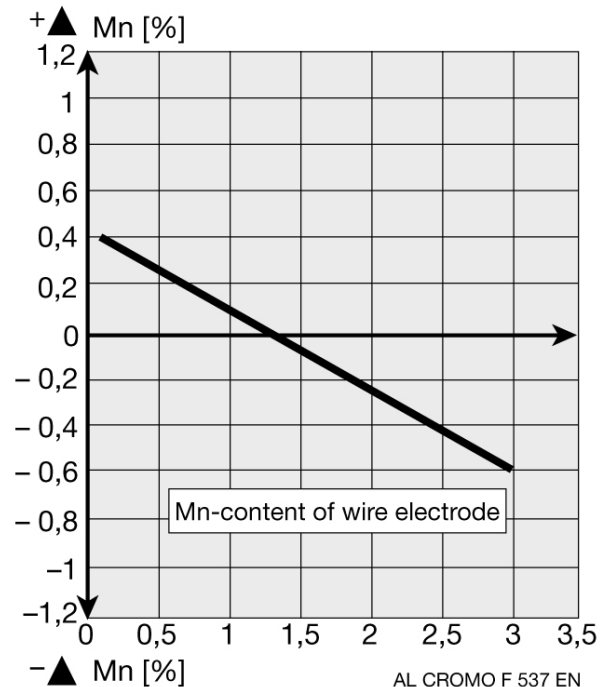
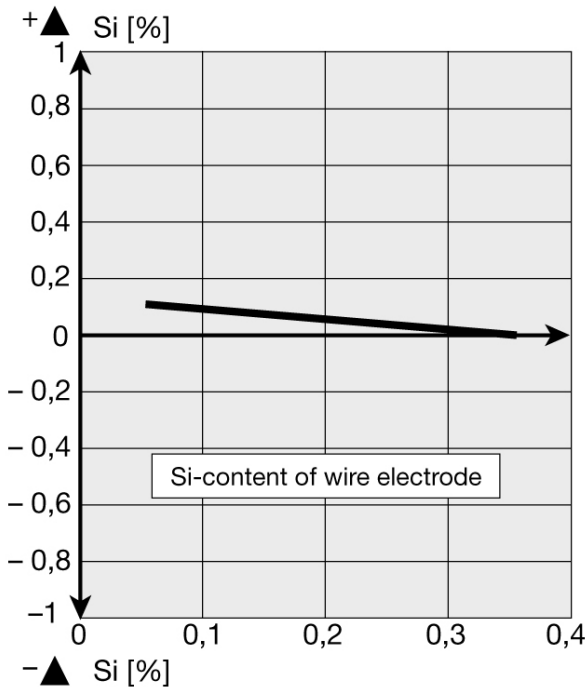
Approvals	Grade
OE-S1 CrMo5	TÜV ●
OE-S2 CrMo1	TÜV ●
OE-CROMO S225	TÜV ●

CE

Boniszewski Basicity ~2.6

METALLURGICAL BEHAVIOUR

Pick-up and burn-out of the alloying elements Si and Mn = f (alloy content of wire electrode)
DVS-Merkblatt 0907 Part 1



AL CROMO F 537 EN

Chemical analysis (Typical values in %)

		C	Mn	Si	Cr	Mo	Nb	V
All weld metal	OE-S1 CrMo5	≤ 0.12	≤ 1	≤ 0.5	5	0.5	-	-
All weld metal	OE-CROMO S225	≤ 0.12	≤ 1	≤ 0.25	2.2	1	-	-
All weld metal	OE-CROMO S225V	≤ 0.12	≤ 1	≤ 0.25	2.4	1	0.02	0.25

All-weld metal Mechanical Properties

	Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)
OE-S1 CrMo5	760°Cx2h	≥ 470	550 - 700	≥ 20
OE-CROMO S225	690°Cx8h	≥ 540	620 - 750	≥ 18
OE-CROMO S225V	710°Cx8h	≥ 540	620 - 750	≥ 18

All-weld metal Mechanical Properties - CV

	Heat Treatment	Impact Energy (J)		
		0 °C	-20 °C	-40 °C
OE-S1 CrMo5	760°Cx2h		≥ 54	
OE-CROMO S225	690°Cx8h	≥ 100	≥ 100	≥ 50
OE-CROMO S225V	710°Cx8h		≥ 27	

Typical applications

	Materials
OE-S1 CrMo5	ASME: A182 Gr. F5, A199 Gr. T5, A213 Gr.T5, A335 Gr.P5;' A336 Cl. F5, A369 Gr. FP5, A387 Gr.5, Cl 1 and 2 EN: 12CrMo19-5, X12CrMo5
OE-CROMO S225	ASME: A387 Gr.22, Cl 1 and 2, A182 Gr.F 22, A336 Gr.F22 EN: 10CrMo9-10, 12CrMo9-10
OE-CROMO S225V	ASME: SA541 Gr.22V, SA336 F22V EN: 12CrMoV9-10

Redrying
300-350°Cx2-4h

Current Conditions
AC; DC+

Packaging data

Packaging Type	PE
Weight (kg)	25
-	●