OP 87

OERLIKON

SAW Fluxes
Cladding

OP 87 is an agglomerated flux for joint welding and strip cladding with chromium, chromium nickel, and chrome nickel molybdenum consumables. It is also suitable for cladding with nickel-based alloys and the best results are obtained on DC (+ pole). The flux has a bulk density of approx. 1 kg/dm3. Flux consumption is approximately 650g per kg weld metal.
OP 87 has chromium compensation. This flux may be welded on either AC or DC. The flux can be supplied in metal drums to prevent moisture pick-up.
Damp flux should be re-dried at 300-350°C. Grain size according to EN 760: 2-20.

Wire	Classification
	EN 760: SA CS 2 99 Cr AC

Wire	Approvals	Grades

Flux Analysis	
SiO2 + TiO2	35 %
CaO + MgO	20 %
CaF2	10 %
Al2O3 + MnO	25 %

Basicity to Boniszewski 1,0

Typical Applications

Wire	Materials
OE-308L	ASME:AISI 304 - 304L - 302 EN:X 2 Cr Ni 19 11 (1.4306)
OE-316L	ASME: ASTM A351 Grades CF3M, CF3MA EN:X 2 Cr Ni Mo 18 12 (1.4435), X 2 Cr Ni Mo 18 10 (1.4404),
OE-318	ASME: AISI 318L EN:X 10 Cr Ni Mo Nb 18 10 (1.4580), X 10 Cr Ni Mo Ti 18 12 (1.4573), X 10 Cr Ni Mo Ti 18 10 (1.4571), X 10 Cr Ni Mo Nb 18 12 (1.4583)
OE-347	ASME: ASTM A336 Grades F321, F347 EN:X 12 Cr Ni Ti 18 9 (1.4878), X 10 Cr Ni Nb 18 9 (1.4550), X 10 Cr Ni Ti 18 9 (1.4541), X 5 Cr Ni Nb 18 9 (1.4543)

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

Wire	C	Mn	Si	Cr	Ni	Mo	Nb	N	Cu
OE-308L	0.03	-	-	18	9	-	-	-	-
OE-316L	0.03	-	-	18	10	2.50	-	-	-
OE-318	0.07	-	-	18	10	2.50	-	-	-
OE-347	0.07	-	-	18	9	-	-	-	-

All-weld metal Mechanical Properties

Wire	Heat Treatment	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation A5 (%)
OE-308L	As Welded	≥ 350	≥ 550	≥ 35
OE-316L	As Welded	≥ 370	≥ 550	≥ 30
OE-318	As Welded	≥ 370	≥ 600	≥ 30
OE-347	As Welded	≥ 350	≥ 575	≥ 30

All-weld metal Mechanical Properties - Cv

Wire	Heat Treatment	Charpy V Notch Impact Toughness (J)							
		+20	0	- 20	- 30	- 40	- 60	- 80	- 101
OE-308L	As Welded	55 min	-	-	-	-	-	-	-
OE-316L	As Welded	55 min	-	-	-	-	-	-	-
OE-318	As Welded	45 min	-	-	-	-	-	-	-
OE-347	As Welded	45 min	-	-	-	-	-	-	-

Packaging data

25kg heavy duty sealed polythene sacks

Further forms of delivery on request.

Current condition
DC+; AC