

SAW Rutile-Acid Fluxes C-Mn and low-alloy steels

OP F72 is a fused flux which donates manganese and silicon to the weld deposit. Suitable for longitudinal and spiral welding of pipes using single wire, tandem or multi-wires. It can be used for both single pass and multi pass welding. Good slag removal. Damp flux should be re-dried at 300-350°C. Grain size according to EN 760: 2-20.

Wire	Classification	
OE-S1	AWS	A5.17: F6A0-EL12
OE-S2	AWS	A5.17: F7A2-EM12K
OE-S2Mo	AWS	A5.23: F8A0-EA2-A2
	EN	760: S F CS 1 66 AC
OE-S1	EN	756: S 35 0 CS S1
OE-S2	EN	756: S 42 2 CS S2
OE-S2Mo	EN	756: S 46 0 CS S2Mo

Wire	Approvals	Grades
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Flux Analysis	
MnO	20 %
SiO ₂	40 %
CaO	19 %
CaF ₂	12 %
MgO	4 %

Basicity to Boniszewski 1,1

Typical Applications

Wire	Materials
OE-S1	ASME: EN: 'S(P)235-S(P)355; L245-L360
OE-S2	ASME: EN: 'S(P)235-S(P)355; L245-L360
OE-S2Mo	ASME: EN:16 Mo 3

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

Wire	C	Mn	Si	Cr	Ni	Mo	Nb	N	Cu
OE-S1	0.04	0.80	0.35	-	-	-	-	-	-
OE-S2	0.03	1	0.35	-	-	-	-	-	-
OE-S2Mo	0.03	1	0.35	-	-	0.50	-	-	-

All-weld metal Mechanical Properties

Wire	Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)
OE-S1	As Welded	≥ 350	440-490	≥ 21
OE-S2	As Welded	≥ 350	490-550	≥ 22
OE-S2Mo	As Welded	≥ 480	570-640	≥ 22

All-weld metal Mechanical Properties - Cv

Wire	Heat Treatment	Charpy V Notch Impact Toughness (J)							
		+20	0	- 20	- 30	- 40	- 60	- 80	- 101
OE-S1	As Welded	-	-	35 min	-	-	-	-	-
OE-S2	As Welded	-	-	35 min	-	-	-	-	-
OE-S2Mo	As Welded	-	-	35 min	-	-	-	-	-

Packaging data

25kg heavy duty sealed polythene sacks

Further forms of delivery on request.

Current condition

DC+; AC