

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

OP F55 is a fused flux which donates manganese and silicon. Suitable for welding carbon steels using the single or multipass techniques and single and multiwire applications. Good slag removal in fillet and groove joints. Especially suitable for high speed welding on thin plate (3-5mm). It can also be used for welding with a copper backing. 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: F7A0-EL12
OE-S2	AWS	A5.17: F7A0-EM12K
	EN	760: S F MS 1 67 AC
OE-S1	EN	756: S 42 0 MS S1
OE-S2	EN	756: S 42 0 MS S2

Wire	Approvals	Grades
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Flux Analysis	
MnO	45 %
CaO	2 %
TiO ₂	20 %
SiO ₂	22 %
CaF ₂	3 %

Basicity to Boniszewski 0,9

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

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

Wire	C	Mn	Si	Cr	Ni	Mo	Nb	N	Cu
OE-S1	0.05	1.10	0.20	-	-	-	-	-	-
OE-S2	0.05	1.30	0.20	-	-	-	-	-	-

All-weld metal Mechanical Properties

Wire	Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)
OE-S1	As Welded	≥ 400	490 - 560	≥ 22
OE-S2	As Welded	≥ 420	520 - 600	≥ 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	40 min	-	27 min	-	-	-	-	-
OE-S2	As Welded	40 min	-	27 min	-	-	-	-	-

Packaging data

25kg heavy duty sealed polythene sacks

Further forms of delivery on request.

Current condition

DC+; AC