



PITTARC FL160F



Main features: Agglomerated fluoride-basic flux suitable for welding of high strength low alloy steels to joint structural steels, boilers and pipe steels. Due to its manganese pick-up, there is an extended field of application with wire electrodes containing lower levels of manganese such as S2. Suitable for tandem, multi-wire and twin-arc welding. The flux promotes a very stable arc characteristics over a wide parameter range with. The resultant weld beads exhibiting a fine surface ripple with a regular profile and even toe blending. This flux delivers a weld metal having excellent toughness properties and crack resistance. The slag is easily detached and in the majority of applications is self-releasing. FL160F can be employed either as DC, positive pole, or AC with maximum current carrying capacity of 1.000 Amp. on a single wire.

Basicity index about 3,1 (in according to Boniszewski)

Classification ISO 14174 : S A FB 1 55 AC H10
 AWS A5.17 : F7A6-EM12K (S2) / F6P8-EM12K (S2) - F7A8-EH12K (S3Si) / F7P8-EH12K (S3Si)
 AWS A5.23 : F8A4-EA2-A2 (S2Mo) / F9A8-EF3-F3 (S3Ni1Mo) / F9P8-EF3-F3 (S3Ni1Mo)
 F8P2-EB2-B2 (S2Cr1Mo) / F8P2-EB3-B3 (S1Cr2Mo1)

Current DC or AC, in single or multi-wires up to 1000 Amp. each wire electrode

Grain size according to ISO 14174: 2-20 (0,2-2,0 mm.)

Density about 1,2 kg./dm³

Rebaking at 350 °C for 2 hours to obtain diffusibile hydrogen bellow 5 ml/100 gr.

Packaging in plastic bags of 25 kg. each

Main constituents Al₂O₃ + MnO = 20% - CaF₂ = 30% - CaO + MgO = 30% - SiO₂ + TiO₂ = 15%

Chemical composition of all weld metal (typical values %)

In combination with wire	C%	Mn%	Si%	Ni%	Cr%	Mo%
PITTARC S2	0,07	1,2	0,3	-	-	-
PITTARC S3Si	0,07	1,6	0,3	-	-	-
PITTARC S2Mo	0,07	1,2	0,3	-	-	0,5
PITTARC S3Ni1Mo	0,07	1,60	0,3	0,9	-	0,5
PITTARC S2Cr1Mo	0,07	0,8	0,2	-	1,2	0,5
PITTARC S1Cr2Mo1	0,06	0,7	0,2	-	2,2	1

Mechanical properties of all weld metal (single values are typical values)

In combination with wire	Heat treat.	Yield Strength Rs [N/mm ²]	Tensile Str. Rm [N/mm ²]	Elong. A5d [%]	Impat Values - ISO-V [Joule]				
					+20°C	0°C	-20°C	-40°C	-60°C
PITTARC S2	AW	≥ 420	500 ÷ 600	≥ 24	≥ 160	≥ 130	≥ 100	≥ 70	≥ 40
PITTARC S3Si	AW	≥ 450	530 ÷ 650	≥ 25	-	≥ 180	-	≥ 100	≥ 70
PITTARC S3Si *	PWHT	≥ 400	490 ÷ 590	≥ 27	-	≥ 200	-	≥ 120	≥ 90
PITTARC S2Mo	AW	≥ 450	600 ÷ 700	≥ 24	≥ 130	≥ 90	≥ 70	≥ 40	-
PITTARC S3Ni1Mo *	PWHT	≥ 580	680 ÷ 720	≥ 30	-	-	-	≥ 40	-
PITTARC S2Cr1Mo **	PWHT	≥ 450	550 ÷ 650	≥ 24	-	≥ 100	-	-	-
PITTARC S1Cr2Mo1 **	PWHT	≥ 380	530 ÷ 630	≥ 24	-	≥ 150	≥ 50	-	-

Heat treatment: AW = as welded, PWHT

(*) = after post weld heat treatment at 620 °C for 2 hour.

(**) = after post weld heat treatment at 920 °C/air + 710 °C

(***) = after post weld heat treatment at 940 °C/air + 740 °C

The above mentioned data may change without prior notice.

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