

EN 760 : SA FB 157
 EN 756 : S 46 5 FB S3Si (All-weld metal)
 AWS A 5.17 : F7A6-EH12K

DESCRIPTION

- Highly basic agglomerated flux for welding of fine grain steels as well as Cr - Mo heat resistant steels.
- Very resistant against hot cracks due to a very low Si pick-up.
- Suitable for single and multilayer welding of thick component sections & restrained conditions.
- Easy slag removal and fine rippled bead aspect.

GENERAL CHARACTERISTICS

- Current DC (+ and -) and AC – 900 A max.
- Basicity index 3.7 (according to Bonizewski; calculated in mole %)
- Grain size 0.4 – 2.0 mm (10 x 40 N° ASTM)
- Apparent density 0.9
- Consumption 1.1 (kg fused flux / kg wire)
- Redrying minimum 2 hours at 350 +/- 50°C

TYPICAL WELD METAL ANALYSIS OF WIRE/FLUX COMBINATION (WEIGHT%)

Wire	ASME 5.17 / 5.23	EN 756 / 12070	C	Mn	Si	Cr	Mo
Soudor S3Si	EH12K	S3Si	0.10	1.55	0.25	-	-
All-weld metal			0.06	1.80	0.28	-	-
Soudor ECrMo 15	EB2R-B2	CrMo1	0.10	0.80	0.10	1.15	0.50
All-weld metal			0.08	1.00	0.15	1.00	0.42
Soudor BCrMo 21	EB3R-B3	CrMo2	0.11	0.50	0.10	2.50	1.00
All-weld metal			0.055	0.95	0.15	2.10	0.90

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Wire	Cond.	Rm [MPa]	Rp0.2 [MPa]	A5 [%]	Av [ISO – V]			
					0° C	-18° C	-20°C	-50°C
Soudor S3Si	B	562	460	36	-	-	-	98 J
Soudor S3Si	R1	580	468	31	-	-	-	83 J
Soudor ECrMo 15	B	720	640	22	120 J	-	60 J	-
Soudor BCrMo 21	R2	590	475	25	-	40 J	-	-

B : as welded

R1 : stress relieved 2 hours at 580°C

R2 : stress relieved 1 hour at 690°C

WIRE/FLUX CLASSIFICATION

Wire	ASME IIC SFA 5.23
Soudor S3Si	F48P6 - EH12K
Soudor ECrMo 15	F9A2 - EB2R - B2R
Soudor BCrMo 21	F8P2 - EB3R - B3R

SUITABLE FOR

- Constructional steels
 - DIN 17100 St 33 to St 52.3
 - EN 10025 S185 to S355J2G3
 - EN 10113-2 S275N to S460NL
 - EN 10113-3 S275M to S460 ML
- Fine grain steels
 - DIN 17102 StE 255 to StE 380
- Boiler plates
 - DIN 17155 HI, HII, 17Mn4
- Cast steels
 - DIN 1681 GS 38, GS 45, GS 52
- Tube steels
 - DIN 17175 St 35.8, St 45.8, 19Mn5
 - EN 10028-2 P235GH, P265GH, P295GH, P355GH
 - EN 10028-3 P275GH, P355GH
- Shipbuilding steels
 - A-E, A 32 – E 32, A 36 – E36
- Creep and heat resisting steels
 - DIN 17155 13CrMo44
 - 10CrMo910, 12CrMo910
- Low alloyed cast steels
 - DIN 17245 GS-22CrMo54, GS 17CrMo55
 - GS-12CrMo910, GS-18CrMo910
- Steels for high pressure hydrogenation vessels
 - 25CrMo4, GS-25CrMo4
 - 25CrMo7, 24CrMo10

PACKING

25 kg (bag) : SAP stock number : 29043