BÖHLER CM 5-UP // BB 24

SAW wire/flux combination, high-alloyed, creep resistant

Classifications

SAW solid wire:			SAW flux:
EN ISO 24598-A	**EN ISO 24598-B**	**AWS A5.23**	**EN ISO 14174**
S S CrMo5	SU 5CM	EB6	SA FB 1 65 DC H5
SAW wire/flux combination			
EN ISO 24598-A	**EN ISO 24598-B**	**AWS A5.23**	**AWS A5.23M**
S S CrMo5 FB	S 55 Y FB SU 5CM	F8PZ-EB6-B6	F55PZ-EB6-B6

Characteristics and typical fields of application

Sub arc wire/flux combination suited for 5 % Cr 0.5 % Mo alloyed steels, particularly for hot hydrogen service. High temperature strength at service temperatures up to +650 °C. The weld deposit exhibits good mechanical properties. Easy slag detachability and smooth bead surface are additional quality features. For information regarding the sub-arc welding flux BÖHLER BB 24 see our detailed data sheet.

Base materials

Similar alloyed creep resistant steels and cast steels

1.7362 X12CrMo5

ASTM A 182 Gr. F5; A 193 Gr. B5; A 213 Gr. T5; A217 Gr. C5; A 234 Gr. WP5; A 314 Gr. 501; A335 Gr. P5 u. P5c; A 369 Gr. FB 5; A 387 Gr. 5; A 426 Gr. CP5

Typical analysis of the wire and of all-weld metal (wt.-%)

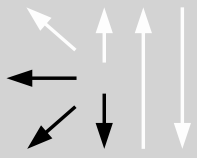
	C	Si	Mn	Cr	Mo
SAW wire wt.-%	0.08	0.3	0.5	5.8	0.60
all-weld metal %	0.06	0.4	0.55	5.5	0.55

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0,2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
a	≥ 470	590 – 700	≥ 18	≥ 47

a annealed 740 °C/4 h / furnace down to 300 °C / air

Operating data



Polarity:	**Redrying of sub-arc flux:**	**ø (mm)**
DC (+) / DC (–)	300 – 350 °C / 2 – 10 h	4.0

Preheating and interpass temperature and post weld heat treatment are determined by the base metal.

Approvals

Wire: TÜV (02605.), SEPROZ, CE