

Classifications

SAW solid wire			
EN ISO 24598-A	EN ISO 24598-B	AWS A5.23	EN ISO 14174
S S CrMo1	SU 1CM	EB2	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 CrMo1 FB	S 55 3 FB SU 1CM	F8P2-EB2-B2	F55P3-EB2-B2

Characteristics and typical fields of application

Sub arc wire / flux combination suited for 1% Cr 0.5 % Mo alloyed boiler, plate and tube steels. Approved in long-term condition up to +570 °C service temperature. Bruscatto ≤ 15 ppm. The metallurgical behaviour of the flux BÖHLER BB 24 is neutral. The sub-arc wire/flux combination produces smooth beads, good wetting, excellent slag detachability, and low hydrogen contents (≤ 5 ml/100 g) are further important features. The combination is ideally suited for multi-pass welding of thick plates. For information regarding the sub-arc welding flux BÖHLER BB 24 see our detailed data sheet. For step cooling applications use flux BB 24-SC.

Base materials

Creep resistant steels and similar alloyed cast steels, case hardening and nitriding steels of similar chemical composition, similar alloyed heat treatable steels with tensile strength up to 780 MPa, steels resistant to caustic cracking.

1.7335 13CrMo4-5, 1.7262 15CrMo5, 1.7728 16CrMoV4, 1.7218 25CrMo4, 1.7225 42CrMo4, 1.7258 24CrMo5, 1.7354 G22CrMo5-4, 1.7357 G17CrMo5-5

ASTM A 182 Gr. F12; A 193 Gr. B7; A 213 Gr. T12; A 217 Gr. WC6; A 234 Gr. WP11; A335 Gr. P11, P12; A 336 Gr. F11, F12; A 426 Gr. CP12

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

	C	Si	Mn	Cr	Mo	P	As	Sb	Sn
SAW wire wt.-%	0.12	0.1	0.8	1.2	0.5				
all-weld metal %	0.08	0.25	0.9	1.1	0.45	≤ 0.012	≤ 0.01	≤ 0.005	≤ 0.005

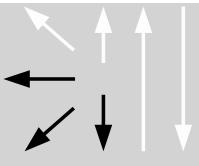
Mechanical properties of all-weld metal

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	-30 °C
a	≥ 470	550 – 700	≥ 20	≥ 47	≥ 27			
n+a	≥ 330	≥ 480	30	120				

a annealed, 680 °C/2h / furnace down to 300 °C / air

n+a normalised 920 °C and annealed 680 °C/2h

Operating data

	Polarity: DC (+) / DC (-)	Redrying of sub-arc flux: 300 – 350 °C, 2 – 10 h	\varnothing (mm) 2.5 3.0 4.0
		Preheating, interpass temperature and post weld heat treatment are determined by the base metal.	

Approvals

Wire/flux combination : TÜV (7809.) Wire: TÜV (02605.), SEPROZ, CE