

Classifications			
SAW solid wire		SAW flux	
EN ISO 26304-A	AWS A5.23	EN ISO 14174	
S3Ni2.5CrMo	EM4 (mod.)	SA FB 1 65 DC H5	
SAW wire/flux combination			
EN ISO 26304-A	EN ISO 26304-B	AWS A5.23	AWS A5.23M
S 69 6 FB S3Ni2.5CrMo	SU 76A6 FB (SUN4C1M3) H5	F11A8-EM4 (mod.)-M4H4	F76A6-EM4 (mod.)-M4H4

Characteristics and typical fields of application

Wire / Flux combination for joint welding of high strength steels with a minimum yield strength of 690 MPa.

Depending on the annealing temperature yield strength of approx. 470-600 MPa are achievable. The flux reacts metallurgically Mn-neutral.

The sub-arc wire/flux combination produces very good low temperature impact properties down to -60°C . Excellent slag detachability, smooth beads, good wetting and low hydrogen contents ($\leq 5 \text{ ml} / 100 \text{ g}$) 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.

Base materials

Quenched and tempered fine-grained steels with high requirements for low-temperature impact work.

S690Q, S690QL, alform plate 620 M, alform plate 700 M, aldur 620 Q, aldur 620 QL, aldur 620 QL1, aldur 700 Q, aldur 700 QL, aldur 700 QL1

ASTM A 514 Gr. F, H, Q ; A 709 Gr. 100 Type B, E, F, H, Q ; A 709 Gr. HPS 100W

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

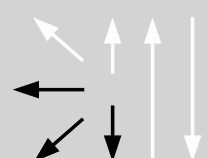
	C	Si	Mn	Cr	Ni	Mo
SAW wire wt.-%	0.12	0.15	1.5	0.6	2.3	0.55
all-weld metal %	0.06	0.3	1.5	0.50	2.2	0.50

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			
				+20 °C	-20 °C	-40 °C	-60 °C
u	740 (≥ 690)	850 (780 – 890)	20 (≥ 17)	120	90	85	≥ 47

u untreated, as welded

Operating data

	Polarity DC (+) / DC (-)	Re-drying of sub-arc flux: 300 – 350 °C / 2 – 10 h	ø (mm) 3.0
			4.0