SUB ARC FLUX : KFL - 222 Aluminate -Basic Type

Standard Designation

ISO 14174 – **S A AB 1 67 AC H5*)**
(EN 760 – SA AB 1 67 AC H5)

Application

Production of longitudinal and spiral welded steel pipe grades L360 or X52 to L555 or X80 according to ISO3183/API spec. 5L
Designed for Welding Pipes , It is suitable for joint welding of low alloy structural steels, pipe steels, boiler steels & fine grain steels
Flux is suitable for single and Multilayer welding of longitudinal, circumferential , and fillet welds.
Excellent slag removal in narrow groove welds of thick wall section .
Excellent current carrying capacity of more than 1500A on the lead wire in multi-wire welding processess.
Even at very high currents the welding process remains stable. The welding seamshows very good wetting,
a regular flow and a very broad flat profile.

Product Information

Basicity Index 1.5
Polarity: AC or DCEP

Redrying

Before welding, if moisture contamination is suspected from either improper storage condition
or due to atmosphere exposure, the flux should be redried at 300 to 350°C for 2 hours.

Chemical Analysis

Elements	CaO+MgO	Al_2O_3+MnO	SiO_2+TiO	CaF_2	S	P					
Values%	28.3	25.6	22.4	19	0.023	0.03					

All weld metal classification of Wire Flux combination

Wire electrode	AWS A5.17/.2	Test assembly ISO 15792-1: type 1.3		AWS A5.17M/5.23M	AWS A5.17/5.23
KSW-12KM	EM12K	ISO 14171-A	S 42 4 AB S2Si	F48A4/P4- EM12K	F7A4/P4-EM12K
KSW-12KHM	EH12K	ISO 14171-A	S 46 4 AB S3Si	F55A4/F49P4-EH12K	F8A5/F7P4-EH12K
KSW-A4	EA4	ISO 14171-A	S 50 3 FB S3Mo	F62A4/EA4-A4	F9A4-EA4-A4

Chemical composition of All weld metal

Wire electrode	AWS A5.17/.2	C	Si	Mn	Mo	Ni	Cr			
KSW-12KM	EM12K	0.05-0.08	0.2-0.5	1.1-1.5						
KSW-12KHM	EH12K	0.05-0.08	0.3-0.5	1.5-1.9						
KSW-A4	EA4	0.05-0.08	0.2-0.5	1.5-1.8	0.4-0.6					

Mechanical Properties of All weld metal

Wire electrode	AWS A5.17/.2	Heat treatment	YS Mpa	UTS Mpa	Elong %	Kerbschlagarbeit ISO-V (J) bei ± 0 °C +32 °F	-20°C -4°F	-30°C -22°F	-40°C -40°F	-51°C -60°F
KSW-12KM	EM12K	AWS *)	>400	>500	>22	>100	>70	>60	>47	
KSW-12KHM	EH12K	AWS *)	>470	>560	>22	>100	>80	>60	>47	
KSW-A4	EA4	AWS	>570	>650	>17	>90	>60	>50	>27	

Post Weld Heat Treatment: *) 580 °C / 1 h