



**SUB ARC FLUX : KFL - 1101**

**Fluoride -Basic type**

## Standard Designation

ISO 14174 – S A FB 1 67  
(EN 760 – SA FB 1 67)

## Application

This Flux is alkaline flux, which belongs to the metallurgy neutral; It hardly increases Si and Mn on weld bead high impact toughness at low temperature. KFL 1101 is especially recommended for longitudinal pipe fabrication, wind mill fabrication (multi-layer technique). Even in narrow gaps, are excellent providing flat beads with low reinforcement and flat weld interfaces free from undercuts. The Flux has excellent welding performance, excellent slag removal, and good bead appearance with different welding wire welding a variety of low alloy structural steel for example pipe, boiler, pressure vessel, bridge, ship etc

## 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 <sub>2</sub> O <sub>3</sub> +MnO	SiO <sub>2</sub> +TiO	CaF <sub>2</sub>	S	P				
Values%	27.3	25.8	24.3	16.9	0.023	0.03				

## All weld metal classification of Wire Flux combination

Wire electrode	AWS A5.17/.2	Test assembly ISO 15792-1:		AWS A5.17M/5.23M	AWS A5.17/5.23
		type 1.3			
KSW-12KM	EM12K	ISO 14171-A	S 38 4 FB S2Si	F48A4/P4- EM12K	F7A4/P4-EM12K
KSW-12KHM	EH12K	ISO 14171-A	S 46 4 FB S3Si	F55A4-EH12K	F8A4-EH12K
KSW-EA4	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	1.2-1.6						
KSW-12KHM	EH12K	0.05-0.08	0.2-0.5	1.5-1.8						
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			
						-20°C -4°F	-30°C -22°F	-40°C -40°F	-51°C -60°F
KSW-12KM	EM12K	AWS *)	>400	>510	>24	>80	>60	>47	
KSW-12KHM	EH12K	AWS *)	>470	>560	>23	>80	>60	>60	
KSW-A4	EA4	AWS	>540	>630	>20	>70	>47		

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