



SUB ARC FLUX : KFL - 333F

Aluminate -Basic Type

Standard Designation

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

Application

KFL-333F is suitable for the two-run or multi-layer technique using single or multi-wire processes. The flux shows constant metallurgical characteristics in combination with appropriate wires. Uniform mechanical properties with low temperature toughness are achieved. Slag-detachability, even in narrow-groove welds of thick-walled sections.

KFL-333F is formulated to achieve very low diffusible hydrogen levels (<4 ml/100 g weld deposit). The chemical composition of the flux and its alloy vector have been designed for achieving large amount of acicular ferrite with typical standard wires.

For welding of gas bottle, boiler

Twin wire and multi-wire welding at high speed.

Easy slag removal-the slag freezes fast.

Product Information

Basicity Index 1.0

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 ₂ O ₃ +MnO	SiO ₂ +TiO	CaF ₂	S	P				
Values%	27.3	25.8	22.4	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 42 5 AB S2Si	F48A5/P5- EM12K	F7A6/P6-EM12K	
KSW-12KHM	EH12K	ISO 14171-A	S 46 5 AB S3Si	F55A5/F49P5-EH12K	F8A6/F7P6-EH12K	
KSW-A4	EA4	ISO 14171-A	S 50 4 AB S3Mo	F62A4/P4-EA4-A3	F9A4/P4-EA4	

Chemical composition of All weld metal

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

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	-20°C	-40°C	-51°C	-73°C
						+32 °F	-4°F	-40°F	-60°F	-100°F
KSW-12KM	EM12K	AWS *)	>440	>520	>24	>100	>80	>60	>47	
KSW-12KHM	EH12K	AWS *)	>470	>560	>23	>120	>100	>80	>47	
KSW-A4	EA4	AWS	>540	>640	>22	>90	>60	>47		

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