



XUN-121 Agglomerated Flux for S.A. Welding

Specification :	EN760	AWS A5.17/5.23
Classifications	A FB 1 55 AC H5	F7A6-EM12K F7A8-EH14 F7A8-EG-G F8A2-EA2-A2 F7P6-EA2-A2

Characteristics: XUN-121is an agglomerated fluoride-basic type flux.

Metallurgical behavior: The behavior of silicon and manganese is neutral, so it should be welded with wires containing relatively high amounts of manganese and silicon.

Grain size: 10 to 60 mesh.

Basicity: 3.1 (BIIW).

As a result of low hydrogen levels (max. 5ml/100g), low oxygen, sulfur, phosphor levels in the weld deposits, uniform mechanical properties with low temperature toughness are obtained. Slag is extremely easy to remove and bead appearance is beautiful in multi-layer narrow gap welding of thick plates.

As the bulk density is low, so is the consumption rate.

Damp flux should be redried at 300-350℃ for 2 hours

Main Constituents (%)

SiO ₂ +TiO ₂	CaO+MgO	Al ₂ O ₃ +MnO	CaF ₂
15	40	20	25

Mechanical properties of deposited metal (AWS A5.17/A5.23)

Wire	PWHT	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Charpy V notch impact strength (J)			
					-30℃	-40℃	-50℃	-60℃
GLES-31	AW	≥400	500-600	≥22	≥80	≥50	≥34	-
GLES-44	AW	≥420	530-600	≥22	≥100	≥80	≥50	≥34
GLES-45	AW	≥460	550-690	≥22	≥100	≥80	≥50	≥34
GLES-30Mo	AW	≥500	600-700	≥20	≥80	≥60	≥34	-

Chemical composition of deposited metal (%)

Wire	C	Si	Mn	Mo	Others
GLES-31	0.05~0.1	0.25~0.35	0.9~1.2	-	
GLES-44	0.05~0.1	0.15~0.25	1.4~1.6	-	
GLES-45	0.05~0.1	0.20~0.30	1.5~1.7	-	0.3~0.5
GLES-30Mo	0.05~0.1	0.15~0.25	1.4~1.6	0.3~0.5	

Applications:

The flux is most suited to welded joints on high-tensile, fine-grain steels as well as steels which are tough at low temperatures

It is suited to welding with tandem and multi-wire processes.

It is also suited to narrow gap welding with thick plates

The flux can be welded on DC+ and AC.

Material to be welded

General structural steels

Mild steels
490MPa high strength steels
590Mpa high strength steels

Ship plates

A B D E A32 A36A40 D32 D36 D40 E32 E36 E40

Pipe steels

X60 X65 X70 X80

Boiler steels

H I H II
17Mn4 19Mn5 15Mo3

Fine-grain structural steels