



XUN-301 Agglomerated Flux for S.A. Welding

Specification :	EN760	AWS A5.17
Classifications	SA CS 1 89 AC H5	F6A0-EL8
		F7A2-EM12K

Characteristics: XUN-301 is an agglomerated calcium-silicate type flux

Metallurgical behavior: High silicon pick-up is obtained. When manganese content in wire is less than 1.5%, also a manganese pick-up.

Grain size: 10 to 60 mesh.

Basicity:1.0 (BIIW).

It has excellent welding technology properties. Regularly shaped welds are deposited without reduction of area or interface notches. Slag detachability is good.

A short slag is produced, thus allowing circumferential welding on small-diameter workpieces without the risk of uncontrolled slag. The production of large pipes (especially spiral pipe welding) is a typical application for this flux. Relatively high manganese pick-up is obtained, thus allowing the flux bi be used with wires with a low Mn content.

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
40	25	25	10

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)	
					-20℃	-30℃
GLES-20	AW	≥330	450-550	≥22	≥80	-
GLES-30	AW	≥400	500-600	≥22	-	≥34

Chemical composition of deposited metal (%)

Wire	C	Si	Mn
GLES-20	0.05~0.1	0.35~0.50	1.2~1.5
GLES-30	0.05~0.1	0.35~0.50	1.4~1.6

Applications:

XUN-301 is suitable for welding joints on general structural, pressure vessel, longitudinal and spiral seam pipeline (especially small diameter pipeline), small LPG store cylinder.

The flux is particularly well suited to twin-wire, tandem and multi-wire welding at relatively high speeds.

It can be used for welding using the two-run technique.

It is especially suited to welding large spiral pipes with multi-wire at high speeds.

It can be welded with AC or DC+

Material to be welded

General structural steels

Mild steels

490MPa high strength steels

590Mpa high strength steels

Pressure vessel and boiler steels,

H I H II

17Mn4 19Mn5

Ship plates

A B D E A32 D32

Pipe steels

X52 X56 X60