FLUX UP LA03

Agglomerated Aluminate-Basic Flux
For Welding and Surfacing

Classification

ISO 14174 S A AB 1 76 AC H5

Description & Applications

Aluminate-Basic agglomerated flux with high current-carrying capacity for submerged arc welding and surfacing (SAW-process) of low-alloy structural steels, fine-grained steels and pipe steels and boiler steels. Could be used for surfacing with special hard facing wires and strips.
Flux UP LA03 is formulated to achieve very low diffusible hydrogen levels (<0.5ml/100g of weld metal deposit), easy slag detachability (auto removal without slag residuals).

Could be used on D.C and A.C welding, using Single, Tandem, Twin or multi wire welding.

Wires recommended for

ISO 14171-A	***AWS A5.17***
S2	EM12
S2Si	EM12K
S2Mo	EA2

Typical Chemical Composition (%)

$SiO_2 + TiO_2$	$Al_2O_3 + MnO$	$CaO + MgO$	CaF_2	Basicity according To Boniszewski
30	30	25	12	~1.1

Flux Properties

Density (kg / dm³)	Grain size ISO 14174	Current carrying capacity
1.0	2 - 20 ; Tyler 8x65 4 - 30 ; Tyler 6x35	Up to 1000A (AC or DC) using one wire

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All Weld Metal Typical Chemical analysis (%)

Wire	C	Si	Mn	Mo
S2	0.04-0.08	0.4-0.8	1.0-1.4	
S2Si	0.04-0.08	0.5-0.9	1.0-1.4	
S2Mo	0.04-0.08	0.2-0.4	1.0-1.4	0.4-0.6

All Weld Metal Typical Mechanical Properties

Wire		$R_{p0,2}$ (MPa)	R_m (MPa)	A (%)	KV (J) +20°C	0°C	-20°C
S2	AW	>400	>510	>24	>80	>60	>50
	S*	>360	>480	>25	>90	>70	>60
S2Si	AW	>400	>510	>24	>80	>60	>50
	S*	>360	>480	>25	>90	>70	>60
S2Mo	AW	>470	>570	>20	>80	>60	>50
	S**	>440	>540	>22	>90	>70	>60

* After PWHT at 580°C/15h
** After PWHT at 620°C/15h

Storage Recycling and Drying

It is recommended to store and use the flux up to 1 year after delivery in dry storage rooms. Nevertheless, the flux can be used even if stored for more than one year, just requires the user to make a weldability test to check if all is well.
Drying conditions specific to the flux: 200 ± 50°C. Supplied in moisture proof packaging.