

## Classifications

EN ISO 14171-A

AWS A5.17

S 42 4 AB S2Si

F7A5-EM12K, F7P5-EM12K

## Characteristics and typical fields of application

**Union S EM12K - UV C 401** is a wire flux combination for joining and surfacing applications with general-purpose structural steels, boiler and pipe steels.

The flux is characterized by low Silicon and moderate Manganese pick-up.

The welding characteristics are good producing a smooth weld bead with excellent slag detachability.

## Base materials

Steels up to a yield strength of 420 MPa.

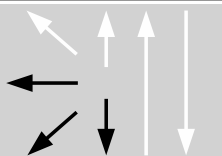
## Typical analysis of the wire and of all-weld metal (wt.-%)

	C	Si	Mn	P	S
Wire	0.09	0.25	1.1	0.02	0.004
Weld metal	0.06	0.45	1.4	0.02	0.005

## Typical Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p0,2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact work ISO-V CVN J	
	MPa	MPa	%	+20°C	-40°C
AW	430	520	36	190	140

## Operating data



**Polarity:**  
DC + /  
AC

Re-drying for flux:  
300-350°C, min. 2hours

## Approvals

Wire/flux combination:

## Size and Packaging

Size mm	Spooling	Weight (Kg)
1.6	Basket/Basketless	25
2.0	Basket/Basketless	25
2.4	Basket/Basketless	25
3.2	Basket/Basketless	25
4.0	Basket/Basketless	25