

## Classifications

**EN ISO 14171-A**
**AWS A5.17 / SFA-5.17**

S 42 5 FB S2Si H5

F7A6-EM12K / F6P8-EM12K

## Characteristics and typical fields of application

**Union S 2 Si - UV 418 TT** is an agglomerated fluoride-basic flux with high basicity and neutral metallurgical behavior. It is suitable for single (AC and DC) and tandem (DC and AC or AC and AC) welding. Very good slag detachability also for narrow gap welding. Flux can especially be used for multi-pass butt welding of medium and high tensile steels. Very good impact toughness of weld metal at low temperatures.

**UV 418 TT** is an agglomerated fluoride-basic flux with high basicity and neutral metallurgical behavior. For more information regarding this welding flux see our detailed data sheet.

## Base materials

General purpose structural steels and fine grained structural steels up to 420 MPa min. yield strength. S235J2G3 – S355J2G3, S255N – S380N, S255NL – S420NL, P275NL1 – P420NL1, P235GH – P355GH, L210 – L360

ASTM A36 Gr. all; A106 Gr. all; A214; A266, A283 Gr. all; A285 Gr. all; A299, A515 Gr. all; A516 Gr. all; A556; A570, A572 Gr. 42, 50; A606 Gr. all; A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B

## Typical analysis

wt.-%	C	Si	Mn
all-weld metal	0.07	0.30	1.10

## Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_p$	Tensile strength $R_m$	Elongation A $(L_0=5d_0)$	Impact energy ISO-V KV J		
	MPa	MPa	%	-60°C	-40°C	20°C
u, DC+	≥ 420	≥ 530	≥ 22	≥ 47	≥ 80	≥ 150
a1, DC+	≥ 360	≥ 480	≥ 25	≥ 60	≥ 120	≥ 180

u untreated, as welded; a1 = 1 hour 620 °C

## Operating data

	Polarity	DC / AC	Dimension mm
			2.0
			2.4
			2.5
			3.0
			4.0

Preheating and Interpass temperature: 180 – 220°C

Heat Input < 2,0 kJ/mm

## Approvals

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