Union S 2 / UV 306

SAW wire/flux combination, non-alloyed

Classifications

EN ISO 14171-A	AWS A5.17
S 42 3 AR S2	F7A2-EM12

Characteristics and typical fields of application

Union S 2 / UV 306 is a wire-flux combination for submerged-arc welding of unalloyed steel grades.

It is used in general purpose applications in structural steel and pipe. It can be used for single- and multi-wire welding with high welding speed using the two-run technique as well as for fillet welding. The flux is donating Mn and Si to the weld pool (desoxidation) and therefore it is less sensitive for porosity issues due to dirt and rust on the plate.

Most suitable for single run or 2-run procedures. Multi-run procedures should be limited to weld thickness of max 20 mm. For higher wall thickness UV 400 or UV 418 TT to be preferred.

Very good slag detachability and nice bead appearance.

Base materials

General and fine grained structural steels, shipbuilding steels, pipe steels up to 420 MPa minimum yield strength.

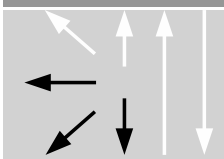
Typical analysis of the wire and of all-weld metal [wt.-%]

	C	Si	Mn
Wire	0.10	0.10	1.00
Weld metal	0.06	0.60	1.40

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R_e	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V (J) (Average value from 3 test results)		
	MPa	MPa	%	+20 °C	-20 °C	-30 °C
AW	500 (≥ 420)	580 (≥ 530)	26 (≥ 22)	≥ 60	65 (≥ 47)	≥ 47

Operating data



Polarity: DC / AC

Approvals

TÜV (2590), DB (51.132.04), ABS (2YM), DNV-GL (IIIYTM), LR (2YM)