

Classifications

EN ISO 14171-A	AWS A5.23 / SFA-5.23
S 46 0 AR S2Mo H5	F8A0-EA2-A2

Characteristics and typical fields of application

Union S 2 Mo - UV 305 is a wire-flux combination for submerged-arc welding of unalloyed and low alloyed steel grades. Very good slag detachability and nice bead appearance. It is recommended to be used for single-wire or twin-arc welding with small wire diameter (e.g. with 2,0 mm) with high welding speed, especially for fillet welding in low wall thickness (< 10 mm). It is particularly well-suited to welding of "water walls" (tube-web-tube joint) for steam water-tube boiler.

UV 305 is an aluminate-rutile agglomerated flux suited for direct and alternating current. For information regarding this welding flux see our detailed data sheet.

Base materials

General and fine grained structural steels, shipbuilding steels, pipe steels up to 460 MPa minimum yield strength and boiler plates and tubes alloyed with 0,5% Mo like 16Mo3.

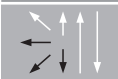
Typical analysis

wt.-%	C	Si	Mn	Mo
wire	0.10	0.15	1.05	0.55
all-weld metal	0.06	0.50	1.20	0.50

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

Condition	Yield strength R _e	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy ISO-V KV J	
	MPa	MPa	%	-18°C	0°C
u, DC+	≥ 460 (510)	≥ 540 (590)	≥ 20 (24)	≥ 27 (35)	≥ 47 (65)
u untreated, as welded					

Operating data

	Polarity	DC / AC	Dimension mm
			2.0
			2.5
			3.0
			4.0

Approvals

TÜV (11214), CE