

## Classifications

<b>EN ISO 24598-A</b>	<b>AWS A5.23 / SFA-5.23</b>
S S CrMo2 AR	F11AZ-EB3R-B3

## Characteristics and typical fields of application

**Union S 1 CrMo 2 - UV 305** is a wire – flux combination for submerged arc welding of 2.25% Cr 1% Mo alloyed boiler, plate and tube. . 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. Smooth beads, good wetting, excellent slag detachability.

**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

Creep resistance steels and similar alloys.

1.7380 – 10CrMo9-10, 1.7276 – 10CrMo11, 1.7281 – 16CrMo9-3,

1.7383 – 11CrMo9-10, 1.7379 – G17CrMo9-10, 1.7382 – G19CrMo9-10,

ASTM A 182 Gr. F22; A 213 Gr. T22; A 234 Gr. WP22; 335 Gr. P22; A 336 Gr. F22; A 426 Gr. CP22

## Typical analysis

wt.-%	C	Si	Mn	Cr	Mo	X
wire	0.12	0.08	0.55	2.5	1.0	< 10
all-weld metal	0.07	0.35	0.80	2.3	1.0	

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

Condition	Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact energy ISO-V KV J
	MPa	MPa	%	20 °C
u, DC+	≥ 680	≥ 760	≥ 15	≥ 27

u untreated, as welded

## Operating data

	<b>Polarity</b>	DC +	<b>Dimension mm</b>
			1.0
			1.6
			2.0
			2.5
			3.0
			4.0

Preheating, interpass temperature and post weld heat treatment are determined by the base metal.

## Approvals

TÜV (10284), CE