

Classifications

EN ISO 24598-A	AWS A5.23 / SFA-5.23
S S CrMo1 AR	F10AZ-EB2R-B2

Characteristics and typical fields of application

Union S 2 CrMo - UV 305 is a wire flux combination for submerged arc welding of creep resistant steel grades with 1-1,5% Cr - 0,5% Mo. 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 resistant steels and similar alloys.

1.7335 - 13CrMo4-5, 1.7262 - 15CrMo5, 1.7278 - 16CrMoV4, 1.7218 - 25CrMo4, 1.7258 - 24CrMo5, 1.7354 - G22CrMo5-4, 1.7357 - G17CrMo5-5

ASTM A193 Gr. B7, A335 Gr. P11 and P12, A217 Gr. WC6

Typical analysis

wt.-%	C	Si	Mn	Cr	Mo
wire	0.12	0.10	0.80	1.25	0.55
all-weld metal	0.07	0.40	0.90	1.15	0.50

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+	≥610	≥690	≥16	≥27

u untreated, as welded

Operating data

	Polarity	DC +	Dimension mm
			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 (10290), CE