Union S 1 CrMo 5 - UV 420 TT-LH

SAW wire/flux combination, low-alloyed, creep resistant

Classifications

EN ISO 24598-B	AWS A5.23 / SFA-5.23
S 49 2 FB SU 5CM	F7P0-EB6-B6

Characteristics and typical fields of application

Union S 1 CrMo 5 - UV 420 TT-LH is a wire flux combination for submerged arc welding creep resistant steel grades with 5% Cr and 0,5% Mo. The weld deposit exhibits good mechanical properties. Easy slag detachability and smooth bead surface are additional quality features.
UV 420 TT-LH is an agglomerated fluoride-basic flux with high basicity and neutral metallurgical behaviour. For information regarding this welding flux see our detailed data sheet.

Base materials

Creep resistant and steels resistant to hydrogen such as 12CrMo19-5 and similar steels (type 6% Cr 0,5% Mo).
1.7362 – X12CrMo5
ASTM A 182 Gr. F5; A 193 Gr. B5; A 213 Gr. T5; A217 Gr. C5; A 234 Gr. WP5; A 314 Gr. 501; A335 Gr. P5 u. P5c; A 369 Gr. FB 5; A 387 Gr. 5; A 426 Gr. CP5

Typical analysis

wt.-%	C	Si	Mn	Cr	Mo
wire	0.08	0.3	0.5	5.8	0.6
all-weld metal	0.06	0.5	0.7	5.4	0.6

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	%	-25°C	0°C
a1, DC+	430 (≥400)	570 (≥520)	28 (≥ 22)	190 (≥ 27)	210 (≥ 47)

a1 = 1 hour 745 °C

Operating data

Polarity	DC +

Dimension mm
2.5
3.0
4.0

Preheating and interpass temperature 200 – 250°C. The recommended PWHT weld heat treatment is annealing at 740°C/min. 2 hrs.

Approvals

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