Union S 2 CrMo - UV 420 TTR

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

Classifications

EN ISO 24598-A	AWS A5.23 / SFA-5.23
S S CrMo1 FB	F8P4-EB2R-B2R-H4

Characteristics and typical fields of application

Union S 2 CrMo – UV 420 TTR is a wire-flux combination for submerged-arc welding of creep resistant steel grades with 1% Cr 0.5% Mo (in long-term condition up to +570ºC service temperature). Bruscato < 15 ppm. The sub-arc wire/flux combination produces smooth beads, good wetting, excellent slag detachability Very good welding behavior in narrow gap joint configurations without limitation in thickness.
UV 420 TTR is a fluoride-basic flux with high basicity and neutral metallurgical behaviour, designed for welding with DC+ polarity with a low level of diffusible hydrogen. For information regarding welding flux UV 420 TTR see our detailed data sheet.

Base materials

Creep resistant steels and similar alloyed cast steels, case hardening and nitriding steels of similar chemical composition, similar alloyed heat treatable steels with tensile strength up to 780 MPa, steels resistant to caustic cracking.
1.7335 - 13CrMo4-5, 1.7262 - 15CrMo5, 1.7728 - 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

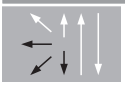
wt.-%	C	Si	Mn	Cr	Mo	X
wire	0.12	0.10	0.80	1.25	0.55	
all-weld metal	0.08	0.20	1.00	1.15	0.50	≤ 12

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

Condition	Yield strength R_e	Tensile strength R_m	Elongation A (L_o=5d_o)	Impact energy ISO-V KV J		
	MPa	MPa	%	-30°C	-20°C	20°C
a1, DC+	≥ 470	≥ 550	≥ 20	≥ 80	≥ 100	≥ 130

a1 = 2 hours 690 °C

Operating data



Polarity	DC +

Dimension mm
1.6
2.0
2.5
3.0
4.0
5.0

Preheat and Interpass temperature : 00 – 250ºC. Single wire (HI max 22 kJ/cm).
For 3.0/3.2 mm e.g. 450-520 A; 29-32 V; 45-55 cm/min. For 4.0 mm e.g. 500-580 A; 29-32 V; 50-55 cm/min.

Approvals

TÜV (03439), CE