Union S 2 Si - UV 400

SAW wire/flux combination, mild steel

Classifications

Type	EN ISO 14171-A	AWS A5.17 / SFA-5.17	AWS A5.23 / SFA-5.23
Multi-run	S 42 4 AB S2Si H5	F7A4-EM12K / F7P6-EM12K	
2-run	S 3T 2 AB S2Si H5		F7TA0G-EM12K

Characteristics and typical fields of application

Union S 2 - UV 400 is a wire-flux combination for submerged arc welding of unalloyed, fine grained and pipeline steel grades.
UV 400 is an agglomerated, aluminate-basic flux. Its characteristic is a low Silicon and a middle Manganese pickup. It can be used on AC and DC. The good weld ability and the good mechanical properties offer a universal application. For information regarding UV 400 flux see our detailed data sheet.

Base materials

Steels up to a yield strength of 380 MPa (56 ksi)
S235JR-S355JR, S235J0-S355J0, S235J2-S355J2, S275N-S355N, S275M-S355M, S275NL-S355NL, S275ML-S355ML, P235GH-P355GH, P275NL1-P355NL1, P275NL2-P355NL2, P215NL, P265NL, P355N, P285NH-P355NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L360NB, L245MB-L360MB, GE200-GE240,
ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1, LF2; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A; A 633 Gr. A, C, D; A 662 Gr. A, B, C; A 707 Gr. L1, L3; A 711 Gr. 1013; A 841 Gr. A, B, C; API 5 L Gr. B, X42, X52, X56

Typical analysis

wt.-%	C	Si	Mn
wire	0.10	0.30	1.10
all-weld metal	0.07	0.65	1.4

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	%	-40°C	0°C	20°C
u, DC+	445 (≥ 420)	535 (≥ 480)	27 (≥ 22)	60 (≥ 47)	100 (≥ 47)	100 (≥ 47)
a1, DC+	430 (≥ 400)	520 (≥ 480)	28 (≥ 25)	70 (≥ 47)	120 (≥ 47)	120 (≥ 47)

u untreated, as welded ; a1 = 5 hours 580°C

Operating data

Polarity	DC +/–
Redrying	300 – 350 °C / 2 hrs min.

Dimension mm
2.0
2.4
2.5
3.0
3.2
4.0

Approvals

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