Union S 3 NiMo - UV 420 TTR-W

SAW wire/flux combination, low-alloyed, high strength

Classifications

EN ISO 26304-A	AWS A5.23 / SFA-5.23
S 50 6 FB S3Ni1,5Mo H5	F9A8-EG-F1-H8 / F8P9-EG-F1-H8

Characteristics and typical fields of application

Union S 3 NiMo - UV 420 TTR-W is a wire flux combination for submerged arc welding of un and low-alloyed steel grades. It is suitable for single (DC) and tandem (DC and AC) welding. Very good slag detachability also for narrow gap welding. Flux can especially be used for multi-pass butt welding of medium tensile steels. Very good impact toughness of weld metal at low temperatures.
UV 420 TTR-W is an agglomerated fluoride-basic flux with high basicity and neutral metallurgical behaviour and a low level of diffusible hydrogen: H5 verified acc. ISO 3690 with DCEP. More detailed information is available in the separate datasheet of the flux.

Base materials

Quenched and tempered fine-grained steels
S460N, S460M, S460NL, S460ML, S460Q - S555Q, S460QL1 - S550QL1, P460N, P460NH, P460NL1, P460NL2, L415NB, L415MB - L555MB, L415QB - L555QB, alform 500 M, alform 550 M, aldur 500 Q, 500 QL, 500 QL1, aldur 550 Q, 550 QL, 550 QL120MnMoNi4-5, 15NiCuMoNb5-6-4,.
ASTM A572 Gr. 65; A633 Gr. E; A738 Gr. A; A852; API 5 L X60, X65, X70, X80, X60Q, X65Q, X70Q, X80Q

Typical analysis

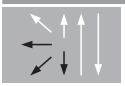
wt.-%	C	Si	Mn	Ni	Mo	S	P
all-weld metal	0.05	0.20	1.60	1.45	0.40	≤ 0.015	≤ 0.015

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	%	-60°C	-40°C	-20°C	20°C
u, DC+	≥ 560	≥ 660	≥ 22	≥ 47	≥ 80	≥ 100	≥ 140
a1, DC+	≥ 560	≥ 660	≥ 22	≥ 47	≥ 47	≥ 100	≥ 150
a2, DC+	≥ 420	≥ 540	≥ 24				≥ 120

u untreated, as welded ; a1 = 2 hours 620 °C ; a2 = 920 °C + air + 2 hours 600 °C

Operating data



Polarity	DC / AC
Polarity	DC +

Dimension mm
3.0
4.0

Approvals

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