Union S 3 NiMo 1 - UV 418 TT

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

Classifications

EN ISO 26304-A	AWS A5.23 / SFA-5.23
S 55 6 FB S3Ni1Mo H5	F9A8-EF3-F3 / F9A8-EF3-F3

Characteristics and typical fields of application

Union S 3 NiMo 1 - UV 418 TT is a wire flux combination for submerged arc welding non-alloyed and low-alloyed steel grades with high strength. Very good impact toughness of weld metal at low temperatures. Very good slag detachability also for narrow gap welding. It is suitable for single (DC) and tandem (DC and AC) welding. Applications can be found in as welded condition (e.g. off shore) and PWHT condition (pressure vessels).
UV 418 TT is an agglomerated fluoride-basic flux with high basicity and neutral metallurgical behaviour. For more information regarding this sub-arc welding flux see our detailed data sheet.

Base materials

Quenched and tempered fine-grained steels
S460N, S460M, S460NL, S460ML, S460Q-S555Q, S460QL-S550QL, S460QL1-S550QL1, P460N, P460NH, P460NL1, P460NL2, 20MnMo-Ni4-5, 15NiCuMoNb5-6-4, L415NB, L415MB-L555MB, L415QB-L555QB, alform 500 M, aldur 500 Q, 500 QL, 500 QL1, aldur 550 Q, 550 QL, 550 QL1, ASTM A572 Gr. 65; A633 Gr. E; A738 Gr. A; A852; API 5 L X60 - X80, X60Q, X65Q, X70Q, X80Q

Typical analysis

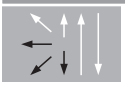
wt.-%	C	Si	Mn	Ni	Mo
all-weld metal	0.08	0.20	1.55	0.90	0.55

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	≥ 640	≥ 20	≥ 47	≥ 70	≥ 120	≥ 140
a1, DC+	≥ 560	≥ 640	≥ 20	≥ 47	≥ 70	≥ 120	≥ 140

u untreated, as welded ; a1 = 2 hours 560 - 620 °C

Operating data



Polarity	DC / AC

Dimension mm
1.6
2.0
2.5
3.0
3.2
4.0
5.0

Preheating and interpass temperature: 180 – 220ºC

Approvals

TÜV (11578), DNV, CE