diamondspark S 550 HP - UV 420 TTR-C

SAW-flux cored wire/flux combination, high strength

Classifications

EN ISO 14171-A	AWS A5.23 / SFA-5.23
S 50 6 FB TZ3Ni1Mo H4	F9A8-ECNi5-Ni5-H4 / F8P8-ECNI5-Ni5-H4

Characteristics and typical fields of application

diamondspark S 550 HP - UV 420 TTR-C is a wire flux combination for joint welding of pipe steels API-5L X70 and other high-strength, quenched and tempered fine grained structural steels up to MSYS = 550 MPa. The weld metal demonstrates very good toughness at low temperatures and especially good strength properties, due to relative high carbon level. The wire allows to weld with high productivity with a good bead appearance, nice fusion and good slag detachability. The wire has a high deposit rate (~13 kg/hr for single wire 3,2 mm, 750 Amp, DC+). The seamless coppered wire is not sensitive to moisture pick up, has a good resistance to deformation (wire feed rollers) and is very easy to straighten to ensure the best current transfer with low contact tip consumption.

UV 420 TTR-C is agglomerated fluoride basic flux with the special feature of a Carbon support resulting in a compensated Carbon loss and a low level of diffusible hydrogen. More detailed information is available in the separate datasheet of the flux.
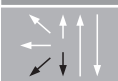
Base materials

API 5 LX65, X70

Typical analysis

wt.-%	C	Si	Mn	Ni	Mo
all-weld metal	0.09	0.3	1.55	0.9	0.3

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
u, DC+	600 (≥560)	675 (620-720)	22 (≥18)	70 (≥47)	120 (≥47)	150 (≥47)
a, DC+	535 (≥ 500)	610 (550-690)	24 (≥ 20)	90 (≥47)	165 (≥ 47)	175 (≥ 47)
Q+T, DC+	510	600	25	130	150	-
N+A, DC+	410	460	33	140	160	-

u untreated, as welded ; a annealed 2hr 620°C; Q+T (930°C+650°C) ; N+A (930°C+650°C) / (t. depend on plate thk)

Operating data

	Polarity	DC +	Dimension mm
			2.4
			3.2
			4.0

Approvals

TÜV (19955)