

Classifications

EN ISO 26304-A	AWS A5.23 / SFA-5.23
S 69 5 FB TZ H4	F12A6-ECF5-H4

Characteristics and typical fields of application

diamondspark S 770 - UV 422 TT-LH is a wire flux combination for joint welding of high-strength, quenched and tempered fine grained structural steels up to MSYS = 770 MPa and suitable for S690-applications with overmatching strength requirements. Superior bead appearance and good wetting properties, together with good slag detachability characterize this wire/flux combination. 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. The wire is basic flux cored.

UV 422 TT-LH is an agglomerated fluoride-basic flux with high basicity, neutral metallurgical behavior and very low level of diffusible hydrogen. For information regarding this welding flux see our detailed data sheet.

Base materials

S690Q,QL,QL1; S770QL1, alform plate 620 M, 700 M, aldur 620Q, aldur 700Q, 700 QL, 700 QL1
ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type B, E, F, H, Q; A 709 Gr. HPS 100W

Typical analysis

wt.-%	C	Si	Mn	Cr	Ni	Mo
all-weld metal	0.06	0.4	1.7	0.4	2.4	0.5

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

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		
	$R_{p0.2}$	R_m	($L_0=5d_0$)	-60°C	-50°C	-40°C
u, DC+	800 (≥ 770)	860 (≥ 830)	18 (≥ 17)	65	85 (≥ 47)	100 (≥ 47)

u untreated, as welded

Operating data

	Polarity	DC +	Dimension mm
			2.4
			3.2
			4.0

Mechanical properties depend on thermal weld cycle and dilution.

Approvals

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