ECOspark® 6-NC

Solid wire, mild steel, non coppered

Classifications

EN ISO 14341-A	AWS A5.18 / SFA-5.18	CSA W48-18 (GMAW Carbon Steel)
G 42 4 M21 3Si1	ER70S-6	B-G 49A 3 C1 S6
G 42 4 C1 3Si1		

Characteristics and typical fields of application

Solid wire electrode of type G3Si1 / ER70S-6 with optimised properties for reliable welding performance within a wide parameter range. The non coppered welding wires with the ECOspark® surface are characterised by very good feeding properties at high wire feeding rates, a very stable arc performance and significant low oxide / silicate forming on the weld surface. This makes them especially suited for fully mechanised processes with wire from BASEdrum, MEGAdrum or the sustainable ECOdrum bulk package.

Base materials

Steels with a yield strength ≥420 MPa (60 ksi)
S235JR-S355JR, S235J0-S355J0, S235J2-S355J2, S275N-S420N, S275M-S420M, P235GH-P355GH, P275NL1-P355NL1, P215NL, P265NL, P355N, P285NH-P420NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L245MB-L415MB, GE200-GE240,
ship building steels: A, B, D, E, A 32-E 36
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; 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, B; A 633 Gr. C; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60

Typical analysis

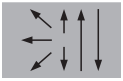
	C	Si	Mn
wt.-%	0.08	0.9	1.45

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

Condition	Yield strength R_e	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	-40°C
u	440 (≥ 420)	560 (≥ 500 – 640)	28 (≥ 20)	160 (≥ 47)	80 (≥ 47)

u untreated, as welded M21, C1

Operating data



Polarity	DC+
Shielding gas (EN ISO 14175)	C1 M21 M33

Dimension mm
0.8
0.9
1.0
1.2
1.6

Approvals

TÜV (19913), DB (32.132.95), CWB, CE