

Classifications

EN ISO 14341-A	AWS A5.18 / SFA-5.18
G 42 3 M21 3Si1	ER70S-6
G 38 3 C1 3Si1	

Characteristics and typical fields of application

GMAW solid wire for welding unalloyed and low alloy steels. Low spatter in short and spray arc transfer modes with CO or gas mixture. The wire is used in boiler, pipeline and structural constructions, shipbuilding and vehicle manufacturing.

Base materials

Steels with yield strength < 420 MPa (60 ksi)
S235JR-S355JR, S235JO-S355JO, 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.-%	0.07	0.85	1.5

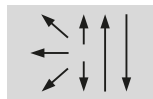
Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R MPa	Tensile strength R MPa	Elongation A (≅5d) %	Impact energy ISO-V KV J -30°C
u	450 (≥ 420)	575 (≥ 500 - 640)	30 (≥ 20)	≥ 27
u2	430 (≥ 420)	555 (≥ 500 - 640)	29 (≥ 20)	≥ 27

u untreated, as welded – shielding gas Ar + 15 – 25% CO

u2 untreated, as welded – shielding gas 100% CO

Operating data



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

Dimension mm

0.8
0.9
1.0
1.2
1.6

Approvals

TÜV (13009), DB (42.236.01), ABS, CWB, CE