

BÖHLER EMK 6 D



Solid Wire, mild steel

Classifications

EN ISO 14341-A

G 42 3 M21 3Si1

G 38 2 C1 3Si1

AWS A5.18 / SFA-5.18

ER70S-6

Characteristics and typical fields of application

GMAW Copper-coated solid wire suited for universal applications in structural steel engineering, with good welding characteristics.

Base materials

Steels with 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 of the solid wire

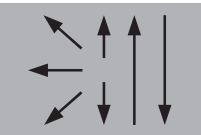
wt.-%	C	Si	Mn
	0.08	0.9	1.45

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

Condition	Yield strength R _e MPa	Tensile strength R _m MPa	Elongation A (L ₀ =5d ₀) %	Impact values ISO-V KV J		
				20°C	-20°C	-30°C
u	440 (≥ 420)	530 (≥ 500 – 670)	30 (≥ 20)	160		≥ 47
u2	420 (≥ 380)	510 (≥ 470 – 600)	26 (≥ 20)	120	≥ 47	

u untreated, as-welded – shielding gas Ar + 15 – 25% CO₂u2 untreated, as-welded – shielding gas 100% CO₂

Operating data



Dimension mm

0.8

1.0

1.2

1.6

Approvals

TÜV (09780), DB (42.132.81), DNV GL, NAKS, CE