BÖHLER EMK 8

Solid Wire, mild steel

Classifications

EN ISO 14341-A	AWS A5.18 / SFA-5.18
G 46 4 M21 4Si1	ER70S-6
G 46 4 C1 4Si1	

Characteristics and typical fields of application

GMAW Copper-coated solid wire of the G 46 4 Si1 / ER70-6 type for metal transfer with minimum spatter when welding with mixed-gases as well as with CO_2.
Due to the high current load capacity, the stable arc and the nearly residual free weld surface the wire offers the best conditions for productive welding processes. Excellent feeding characteristics provides high wire feed rates especially during robotic welding. The coppered solid wires of the EMK series can be provided in bulk packages from ECOdrum 250 up to SQUAREdrum 550.

Base materials

Steels up to a yield strength < 460 MPa (67 ksi)
S235JR-S355JR, S235J0-S355J0, S450J0, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P275NL1-P460NL1, P215NL, P265NL, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE240,
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, E; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60, X65, X70

Typical analysis

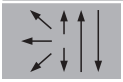
	C	Si	Mn
wt.-%	0.1	1.0	1.7

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	-50°C
u	480 (≥ 460)	620 (≥ 530 – 680)	26 (≥ 20)	150	80 (≥ 47)	≥ 47
u1	470 (≥ 460)	580 (≥ 530 – 680)	28 (≥ 20)	110	50 (≥ 47)	≥ 47
s	410	540	28	130	70	≥ 47

u untreated, as welded – shielding gas M21
u1 untreated, as welded – shielding gas C1
s stress relieved, 600 °C/2h – shielding gas M21

Operating data



Polarity	DC+
Shielding gas (EN ISO 14175)	C1 M1 M2 M3

Dimension mm
0.8
1.0
1.2
1.6

Approvals

TÜV (03038), DB (42.132.82), ABS, DNV, LR, CE