

EN ISO 14341-A: G 42 3 M G3Si1
G 38 2 C G3Si1
EN ISO 14341-B: G49A 3 M G12
G49A 2 C G12
AWS A5.18: ER70S-6
AWS A5.18M: ER48S-6
W. No.: 1.5125

BÖHLER EMK 6 D

GMAW solid wire, mild steel

Description

Copper coated solid wire suited for universal GMAW application in structural steel engineering, and provides excellent feeding characteristics. Thanks to the good mechanical properties this filler wire is optimally suited for welding thick-walled components. The non copper coated version of the solid wire, BÖHLER EMK 6 D TOP, is designed for low spatter formation and excellent feeding properties.

Typical Composition of Solid Wire

	C	Si	Mn
wt-%	0.08	0.9	1.45

Mechanical Properties of All-weld Metal

	u	u2
yield strength R_e N/mm ² (MPa):	440 (≥420)	420 (≥380)
tensile strength R_m N/mm ² (MPa):	530 (500-640)	510 (470-600)
elongation A ($L_0=5d_0$) %:	30 (≥24)	26 (≥20)
impact work ISO-V KV J	+20°C: 160 (≥90)	120 (≥70)
	-20°C:	(≥47)
	-30°C:	(≥47)
u	<i>untreated, as-welded – shielding gas Ar + 15- 25% CO₂</i>	
u2	<i>untreated, as-welded – shielding gas 100% CO₂</i>	

Operating Data



shielding gases:
Argon + 15- 25% CO₂
100% CO₂

ø mm

0.8
1.0
1.2
1.6



Base Materials

steels up to a yield strength of 420 N/mm² (60 ksi)

S235J2G3 - S355J2G3, E360, P235T1-P355T1, P235G1TH, L210, L290MB, P255G1TH, P235GH, P265GH, P295GH, P310GH, P255NH, S235JRS1 - S235J4S, S355G1S - S355G3S, S255N - S385N, P255NH-P385NH, GE200-GE260

ASTM A27 u. A36 Gr. all; A106 Gr. A, B A214; A242 Gr.1-5; A266 Gr. 1, 2, 4; A283 Gr. A, B, C, D; A285 Gr. A, B, C; A299 Gr. A, B; A328; A366; A515 Gr. 60, 65, 70; A516 Gr. 55; A556 Gr. B2A; A570 Gr. 30, 33, 36, 40, 45; A572 Gr. 42, 50; A606 Gr. all; A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A841; A851 Gr. 1, 2; A935 Gr.45; A936 Gr. 50

Approvals and Certificates

TÜV-D (9780.), DB (42.014.17), GL, CE