

EN ISO 14341-A: G 42 3 M21 3Si1
G 38 2 C1 3Si1
EN ISO 14341-B: G 49A 3 M21 S12
G 49A 2 C1 S12
AWS A5.18: ER70S-6

BÖHLER SG 2

GMAW solid wire, unalloyed

Description

Copper-coated solid wire or welding rods suited for universal application in boiler and vessel fabrication and in structural steel engineering. Largely spatter-free metal transfer both when using gas mixtures and carbon dioxide. Thanks to its high current carrying capacity this filler metal is also optimally suited for welding thick-walled sheet and plate structures.

Typical Composition of All-weld Metal

	C	Si	Mn
wt-%	0.07	0.85	1.5

Mechanical Properties of All-weld Metal

(*)	u	u2
Yield strength R_e MPa:	(≥ 420)	(≥ 380)
Tensile strength R_m MPa:	(500-640)	(470-600)
Elongation A ($L_0=5d_0$) %:	(≥ 20)	(≥ 20)
Impact strength ISO-V KV J	-20°C: (≥ 47) -30°C: (≥ 47)	(≥ 47)

(*) u untreated, as welded – shielding gas Ar + 15-25% CO₂
u2 untreated, as welded – shielding gas 100% CO₂

Operating Data



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

ø mm
0.8
1.0
1.2
1.6



Base Materials

S235JR-S355JR, S235JO-S355JO, S235J2-S355J2, S235J2G3-S355J2G3, S255N-S420N, S275M-S420M, S235JRS1-S235J4S, S355G1S-S355G3S, E360, P235GH-P355GH, P255G1TH, P275NL1-P355NL1, P215NL, P265NL, P355N, P255NH-P420NH, P235T1-P355T1, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P310GH, P235G1TH, L210, L245NB-L415NB, L245MB-L415MB, GE200-GE260, 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

Approvals

TÜV-D (11774.), DB (42.014.40), CE