

EN ISO 14341-A: G 42 3 M G3Si1
G 38 2 C G3Si1
EN ISO 14341-B: G 49A 3 M G12
G 49A 2 C G12
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 N/mm ² (MPa):	(≥420)	(≥380)
Tensile strength R_m N/mm ² (MPa):	(500-640)	(470-600)
Elongation A ($L_0=5d_0$) %:	(≥20)	(≥20)
Impact strength ISO-V A_v J	-20°C: (≥47) -30°C: (≥47)	(≥47)

(*) u untreated, as welded – shielding gas Ar + 15- 20% CO₂
u2 untreated, as welded – shielding gas 100% CO₂

Operating Data



shielding gas:
Argon + 15- 20% CO₂
100% CO₂

ø mm
0.8
1.0
1.2
1.6



Base Materials

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

TÜV-D (11774.), DB (42.014.10), CE