

TECHNICAL DATASHEET

AI-01EV50-1

BOHLER FOX S EV 50-1

Specifications

AWS A5.1 E7018-1H4R

AWS A5.1M E4918-1H4R

EN ISO 2560-B E 49 18-1A U H5

Description and Applications

AI-01EV50-1 is a basic covered electrode with very good welding characteristics including out of position work. It has particularly good impact properties down to -50°C and CTOD tested at -10°C. Weld metal recovery about 115%.

AI-01EV50-1 is crack-free weld metal when welding high-carbon steels. Very low hydrogen content in the weld metal (under AWS conditions $HD \leq 4 \text{ ml/100 gm}$)

Applications: Suitable for use in tank construction, boiler and pressure vessel manufacturer, apparatus engineering, vehicle manufacture, offshore applications and ship building. Suitable for welding steels with low purity and high carbon content.

Base Materials

S235JRG2 – S355J2, E295, E335, C35; boiler steels P235GH, P265 GH, P295GH, P355GH; fine grained structural steels up to S420N; shipbuilding steels A, B, D, E; offshore steels; pipe steels P265, P295, L290NB – L415NB, L290MB, X42 – X60; cast steels GS-38, GS-45, GS-52; ageing resistant steels Ast35 – Ast52; SA 516 Gr 60, 65, 70; SA333 Gr 6.

Typical Weldmetal Analysis

C	Si	Mn	P	S	Cr	Mo	Ni	Mn+Ni+Cr+Mo+V
0.08	0.50	1.40	0.009	0.01	<0.05	<0.05	<0.05	1.4

Mechanical Properties of Weldmetal

	As Welded
Yield Strength	490MPa
Tensile Strength	560MPa
Elongation	30%
Impact Work	(+20°C) 190 KV j (-50°C) 100 KV j



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Welding Parameters

Diameter (mm)	Length (mm)	Current (Amps)
2.5	350	80-110
3.2	350	100-145
4.0	450	140-200

Sold in 16kg cartons, with 8 x individually sealed 2kg vacuum packs per carton.

Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position, (4F) Horizontal overhead position, (4G) Overhead position, (3G, 3F, 5G up) Vertical Position Up & (3G, 3F, 5G down) Vertical position down

Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy. All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at sales@alloysint.com.au



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