merian®

EN 12070: W CrMo2 Si
AWS A5.28-96: ER90S-G
ER90S-B3 (mod.)
W.No.: 1.7384
[1)] BS 2901-1: A 33

[1)] *replaced by EN 12070*

BÖHLER CM 2-IG

GTAW rod,
low-alloyed, high temperature

Description

GTAW rod for 2¼ Cr 1% Mo alloyed boiler, plate and tube steels as well as in oil refineries. Preferably used for base metal 10CrMo9-10 (ASTM A335 P22) at operating temperatures up to 600°C. Also for similarly alloyed quenched and tempered steels as well as case hardening steels. The weld metal meets all prerequisites for reliable long term creep properties without embrittlement due to very low content of trace elements.

Very good operating characteristics.

Preheating and interpass temperature 200-350°C. Tempering at 700-750°C at least 1 hr cooling in furnace/air.

Due to the chemically controlled trace elements fulfilment of step-cooling requirements is possible. Please contact our service department for actual values.

Typical Composition of Welding Rod

	C	Si	Mn	Cr	Mo
wt-%	**0.06**	**0.7**	**1.1**	**2.6**	**1.0**

Mechanical Properties of All-weld Metal

		a	
yield strength R_e N/mm²:		**470**	(≥420)
tensile strength R_m N/mm²:		**600**	(520-670)
elongation A (L_0=5d_0) %:		**23**	(≥22)
impact work ISO-V KV J	+20°C:	**190**	(≥47)

a annealed, 720°C/2 h/furnace down to 400°C/air – shielding gas 100% Argon

Operating Data

shielding gases: **100% Argon**
rod marking:
front: **W CrMo2 Si**
back: **1.7384**

ø mm
1.6
2.0
2.4
3.0

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Base Materials

high temperature steels and similar alloyed cast steels, similar alloyed case hardening steels, nitriding steels

1.7380 10CrMo9-10, 1.8075 10CrSiMoV7, 1.7379 G17CrMo9-10

ASTM A335 Gr. P22, A217 Gr. WC 9

Approvals and Certificates

TÜV-D, TÜV-Ö, CL, FI, ITI, SEPROS

Same Alloy Filler Metals

SMAW stick electrode: FOX CM 2 Kb
FOX CM 2 Ti
GMAW solid wire: CM 2-IG
SAW combination: CM 2-UP/BB 24