BÖHLER CM 2-IG

TIG rod, low-alloyed, creep resistant

Classifications

EN ISO 21952-A	EN ISO 21952-B	AWS A5.28	AWS A5.28M
W CrMo2Si	W 2C1M3	ER90S-G	ER62S-G
		ER90S-B3 (mod.)	ER62S-B3 (mod.)

Characteristics and typical fields of application

GTAW rod for 2.25 % 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). Approved in long-term condition up to +600 °C service temperature. 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. *For step- cooling applications we can offer special products.

Base materials

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

1.7380 10CrMo9-10, 1.7276 10CrMo11, 1.7281 16CrMo9-3, 1.7383 11CrMo9-10, 1.7379 G17CrMo9-10, 1.7382 G19CrMo9-10

ASTM A 182 Gr. F22; A 213 Gr. T22; A 234 Gr. WP22; 335 Gr. P22; A 336 Gr. F22; A 426 Gr. CP22

Typical analysis of the TIG rods (wt.-%)

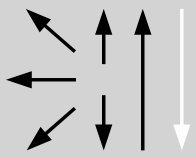
	C	Si	Mn	Cr	Mo	P	As	Sb	Sn
wt.-%	0.08	0.6	0.9	2.5	1.0	≤ 0.010	≤ 0.010	≤ 0.005	≤ 0.006

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0,2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
a	**470** (≥ 400)	**600** (≥ 550)	**23** (≥ 18)	**190** (≥ 47)

a annealed, 720 °C/2 h / furnace down to 300 °C / air – shielding gas Argon

Operating data



Polarity:	Shielding gas:	Rod marking:	ø (mm)
DC (–)	100 % Argon	front: W CrMo2 Si back: 1.7384	1.6 2.0 2.4 3.0

Preheating and interpass temperature 200 – 350 °C. Tempering at 700 – 750 °C at least 1 h followed by cooling in furnace down to 300 °C and still air.

Approvals

TÜV (1564.), SEPROZ, CE, NAKS (ø 2.4 mm; ø 3.0 mm)