

Classifications

EN ISO 21952-A	AWS A5.28 / SFA-5.28
W CrMo5Si	ER80S-B6

Characteristics and typical fields of application

BÖHLER CM 5-IG is a solid filler rod and wire designed for manual gas tungsten arc welding. The 5Cr-0.6Mo type weld metal exhibits a martensitic-bainitic microstructure with favorable mechanical properties in tempered and quenched and tempered condition. The range of application covers joint welding of similar alloyed creep resistant steel and steel casting in thermal power and chemical industry. Approved for long-term service under creep condition up to 650 °C.

Base materials

Similar alloyed creep resistant steels and castings like

1.7362 X11CrMo5, 1.7365 GX15CrMo5, 1.7353 GS-12CrMo19-5, 1.7373 X7CrMo6-1, 1.7374 X11CrMo6-1

ASTM A 182 Gr. F5; A 193 Gr. B5; A 213 Gr. T5; A217 Gr. C5; A 234 Gr. WP5; A 314 Gr. 501; A335 Gr. P5 u. P5c; A 369 Gr. FB 5; A 387 Gr. 5; A 426 Gr. CP5

Typical analysis

	C	Si	Mn	Cr	Mo
wt.-%	0.08	0.4	0.5	5.6	0.6

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy ISO-V KV J
	MPa	MPa	%	20°C
T	500 (≥ 470)	620 (≥ 590)	20 (≥ 17)	200 (≥ 47)

T: tempered (730 °C / 2 h)

Operating data

	Polarity	DC -	Dimension mm
	Shielding gas (EN ISO 14175)	I1	1.2
	Rod marking	-	2.0 × 1000
			2.4 × 1000
			3.0 × 1000

Preheating, interpass temperature, and post-weld heat treatment as required by the base metal. Preheating can normally be recommended being in a range of 150 to 350 °C depending on the wall thickness. Common post weld heat treatments are carried out between 730 and 760°C.

Approvals

TÜV (00724), CE