

Classifications

EN ISO 21952-A	EN ISO 21952-B	AWS A5.28	AWS A5.28M
W CrMo5Si	W 55 I1 5CM	ER80S-B6	ER55S-B6

Characteristics and typical fields of application

GTAW rod for 5 % Cr 0.5 % Mo steels and steels for hot hydrogen service, particularly for application in oil refineries and the base metals X12CrMo5 / P5. Approved in long-term condition up to +650 °C service temperature.

Base materials

High temperature steels and similar alloyed cast steels

1.7362 X12CrMo5

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 of the TIG rods (wt.-%)

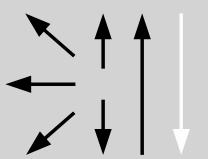
	C	Si	Mn	Cr	Mo
wt.-%	0.08	0.4	0.5	5.6	0.6

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	500 (≥ 470)	620 (≥ 590)	20 (≥ 17)	200 (≥ 47)

a annealed 730 °C/2 h / furnace down to 300 °C / air – shielding gas Argon

Operating data

	Polarity: DC (–)	Shielding gas: 100 % Argon	Rod marking: front: ✦ W CrMo5 Si back: ER80S-B6	ø (mm)
				1.6
				2.0
				2.4
				3.0

Preheating and interpass temperatures 150 – 300 °C. Tempering at 730 – 760 °C for at least 1 h followed by cooling in furnace down to 300 °C and still air.

Approvals

TÜV (0724.), SEPROZ, CE