

Classifications

EN ISO 21952-A
W CrMo5Si

AWS A5.28 / SFA-5.28
ER80S-B6

Characteristics and typical fields of application

GTAW rod for 5% Cr 0.5% Mo steels and steels for pressurized hydrogen service, particularly for application in oil refineries. Preferably used for steel grades such as X12CrMo5 and Gr. P5. Approved in long-term service up to 650°C.

Base materials

High temperature steels and similar alloyed cast steels, QT-steels similar alloyed up to 1180 MPa

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 wire rod

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

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

Condition	Yield strength $R_{p0.2}$ MPa	Tensile strength R_m MPa	Elongation A ($L_0=5d_0$) %	Impact values ISO-V KV J 20°C
a	500 (≥ 470)	620 (≥ 590)	20 (≥ 17)	200 (≥ 47)

a annealed 730 °C/2 h, cooling down to 300 °C / air.

Shielding gas: 100% Ar. Gas flow: 8 – 12 l/min.

Polarity: DC-

Operating data



Shielding gas
(EN ISO 14175)

11

Dimension mm

1.6 × 1000
2.0 × 1000
2.4 × 1000
3.0 × 1000

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 (00724),CE