

Classifications

EN ISO 21952-A	AWS A5.28 / SFA-5.28
W MoVSi	ER80S-G

Characteristics and typical fields of application

TIG rod of type W MoVSi / ER80S-G for manual gas tungsten arc welding. The 0.5Cr-1Mo-0.5V type weld metal exhibits a bainitic microstructure with favorable mechanical properties in tempered condition. The range of application covers joint welding of similar alloyed creep resistant steel and steel casting like 16MoV6-3 in the thermal power industry. Approved for application under creep condition at design temperatures up to 560 °C.

Base materials

Similar alloyed creep resistant steels and cast steels like
1.7715 – 14MoV6-3

Typical analysis

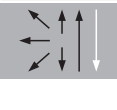
	C	Si	Mn	Cr	Mo	V
wt.-%	0.08	0.6	0.9	0.45	0.85	0.35

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	520 (≥ 355)	670 (≥ 620)	24 (≥ 18)	220 (≥ 47)

T: tempered: (700 °C / 2 h)

Operating data

	Polarity	DC -	Dimension mm
	Shielding gas (EN ISO 14175)	I1	2.4 × 1000
	Rod marking	+ W MoV Si / 1.5407	3.2 × 1000

Preheating and interpass temperatures 200 to 300 °C. In order to optimize impact energy a welding technique that ensures small layer thickness and low heat input is recommended. Stringer beads or weaving of maximum 2.5 x electrode diameter is recommended. Post weld heat treatment should be carried out at 700 to 720 °C for at least 2 hours followed by slow cooling.

Approvals

TÜV (01093), DB (42.014.02), LTSS, CE