BÖHLER DMO-IG

TIG rod, low-alloyed, creep resistant

Classifications

EN ISO 21952-A	EN ISO 21952-B	EN ISO 636-A	EN ISO 636-B	AWS A5.28	AWS A5.28M
W MoSi	W 52 I1 1M3	W 46 3 W2Mo	W 55A 3U W1M3	ER70S-A1	ER49S-A1
				(ER80S-G)	(ER55S-G)

Characteristics and typical fields of application

Copper coated GTAW rod for welding in boiler, pressure vessel, pipeline, and crane constructions as well as in structural steel engineering. Very tough deposit of high crack resistant, non- ageing. Recommended for the temperature range from –30 °C to +500 °C. Good copper bonding with low total copper content. Very good welding and flow characteristics.

Base materials

Similar alloyed creep resistant steels and cast steels, ageing resistant and steels resistant to caustic cracking

16Mo3, 20MnMoNi4-5, 15NiCuMoNb5, S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300

ASTM A 29 Gr. 1013, 1016; A 106 Gr. C; A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr. B, C, D; A 335 Gr. P1; A 501 Gr. B; A 533 Gr. B, C; A 510 Gr. 1013; A 512 Gr. 1021, 1026; A 513 Gr. 1021, 1026; A 516 Gr. 70; A 633 Gr. C; A 678 Gr. B; A 709 Gr. 36, 50; A 711 Gr. 1013; API 5 L B, X42, X52, X60, X65

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

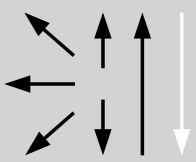
	C	Si	Mn	Mo
wt.-%	0.1	0.6	1.1	0.5

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	–30 °C
u	**530** (≥ 460)	**650** (550 – 740)	**26** (≥ 22)	**200**	**80** (≥ 47)
a	**480**	**570**	**27**	**230**	

u untreated, as-welded – shielding gas Argon
a annealed, 620°C /1h / furnace down to 300 °C / air – shielding gas Argon

Operating data



Polarity:	Shielding gas:	Rod marking:	ø (mm)
DC (–)	100 % Argon	front: WMoSi back: 1.5424	1.6 2.0 2.4 3.0

Preheating, interpass temperature and post weld heat treatment as required by the base metal.

Approvals

TÜV (0020.), KTA 1408.1 (8066.), DB (42.014.09), BV (UP), DNV (I YMS), CRS (3), CE, NAKS