

Classifications			
EN ISO 21952-A	EN ISO 21952-B	AWS A5.28	AWS A5.28M
G MoSi	G 52 M21 1M3	ER70S-A1 (ER80S-G)	ER49S-A1 (ER55S-G)
	G 52 C1 1M3		

Characteristics and typical fields of application

GMAW wire for 0.5 % Mo alloyed boiler, plate and tube steels as well as in pressure vessel and structural steel engineering. Highly-quality, very tough deposit of high cracking resistance, non-ageing. Approved in long-term condition up to +550 °C service temperature. Low temperature toughness to -40 °C. The wire shows very good feeding characteristics, resulting in smooth welding and wetting behaviour. Uniform copper bonding with low total copper content.

Base materials

Creep resistant steels and similar alloyed 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

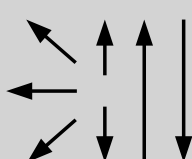
Typical analysis of solid wire (wt.-%)

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

Mechanical properties of all-weld metal

Condition	Yield strength	Tensile strength	Elongation	Impact work	
	R _{p0.2}	R _m	A (L ₀ =5d ₀)	ISO-V KV J	
	MPa	MPa	%	+20 °C	-40 °C
u	500 (≥ 400)	600 (≥ 520)	25 (≥ 22)	150	≥ 47
u1	470 (≥ 400)	590 (≥ 520)	23 (≥ 22)	150	≥ 47
a	450 (≥ 400)	570 (≥ 520)	25 (≥ 17)	150 (≥ 47)	
u	untreated, as-welded – shielding gas Ar + 18 % CO ₂				
u1	untreated, as-welded – shielding gas 100 % CO ₂				
a	annealed, 620 °C/1h / furnace down to 300 °C / air – shielding gas Ar + 18 % CO ₂				

Operating data

	Polarity:	Shielding gases:	ø (mm)
		DC (+)	Argon + 15 – 25 % CO ₂ 100 % CO ₂

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

Approvals
DB (42.014.09), SEPPOZ, CE, NAKS