

Classifications		solid wire
EN ISO 14341-A	AWS A5.18	
G 46 2 C1 4Si1 / G 46 4 M21 4Si1	ER70S-6	

Characteristics and field of use

GMAW solid wire electrode for welding unalloyed and low alloy steels with CO₂ or gas mixture.

Low spatter transfer in short and spray arc range. High arc stability also at high welding current amperage. Large application range; specially suited for steels of higher strength in boiler and pipeline construction, shipbuilding, vehicle manufacturing and structural engineering.

Base materials

S235JRG2 – S355J2; boiler steels P235GH, P265GH, P295GH, P355GH; fine grained structural steels up to S460N; ASTM A27 u. A36 Gr. alle; A106 Gr. A, B; A214; A242 Gr. 1-5; A266 Gr. 1, 2, 4; A283 Gr. A, B, C, D; A285 Gr. A, B, C; A299 Gr. A, B; A328; A366; A515 Gr. 60, 65, 70; A516 Gr. 55; A556 Gr. B2A; A570 Gr. 30, 33, 36, 40, 45; A572 Gr. 42, 50; A606 Gr. all; A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A851 Gr. 1, 2; A935 Gr. 45; A936 Gr. 50

Typical analyses in %

C	Si	Mn
0.08	1.05	1.65

Mechanical properties of the weld metal

Heat-treatment	Shielding gas	0.2%-Yield strength	Tensile strength	Elongation (L ₀ =5d ₀)	Impact values CVN		
		MPa	MPa	%	J	-20 °C	-40 °C
AW	CO ₂	450	550	25	90	47	
AW	M 21	480	580	24	95	65	47

Approvals

TÜV (No. 00376), ABS, BV, DNV GL, LR

Form of delivery and recommended welding parameters

Wire diameter [mm]	Current type	Shielding gas (EN ISO 14175)		
		M 2	M 3	C 1
0.8	DC (+)	M 2	M 3	C 1
1.0	DC (+)	M 2	M 3	C 1
1.2	DC (+)	M 2	M 3	C 1
1.6	DC (+)	M 2	M 3	C 1

Other spool types on request.