UTP A 118 Unalloyed and low alloyed steels

Classifications	solid wire
EN ISO 14341-A	AWS A5.18
G 42 2 C1 3Si1 / G 46 4 M21 3Si1	ER70S-6

Characteristics and field of use

GMAW solid wire electrode for welding unalloyed and low alloy steels with shielding gas. All-purpose useable with gas mixture or CO_2, low-spatter transfer in the short and spray arc range. Used in boiler and pipeline construction, shipbuilding, vehicle manufacturing and structural engineering.

Base materials

S235JRG2 – S355J2; boiler steels P235GH, P265GH, P295GH;
fine grained structural steels up to S420N and armour steels.
ASTM A27 u. A36 Gr. all; 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. alle; 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 analysis in %

C	Si	Mn
0.08	0.85	1.50

Mechanical properties of the weld metal

Heattreatment	*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	420	540	25	85	47	
AW	M 21	440	560	24	95	60	47

Approvals

TÜV (No. 00106), DB (No. 42.132.02), ABS, DNV GL, LR

Form of delivery and recommended welding parameters

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

Other spool types on request.