Union K 56

Solid wire, unalloyed

Classifications

EN ISO 14341-A	EN ISO 14341-B	AWS A5.18
G 46 2 C1 4Si1 G 46 4 M21 4Si1	G 55A 2 C1 S6 G 55A 4 M21 S6	ER70S-6

Characteristics and typical fields of application

GMAW solid wire electrode for welding unalloyed and low alloy steels with CO_2 or gas mixture.

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

Base materials

Steels up to a yield strength of 460 MPa (67 ksi)

S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P275NL1-P460NL1, P215NL, P265NL, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE240,

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C, E; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60, X65

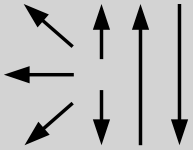
Typical analysis of solid wire (wt.-%)

	C	Si	Mn
wt-%	0.08	1.05	1.65

Mechanical properties of all-weld metal

Heat-treatment	Shielding gas	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	–20 °C	–40 °C
aw	CO_2	450	550	25	90	47	
aw	M21	480	580	24	95	65	47

Operating data



Polarity:	Shielding gas:	ø mm	Spool:
DC (+)	(EN ISO 14175) M2, M3, C1	0.8 1.0 1.2 1.6	B300 B300 B300 B300

Approvals

TÜV (00376), DB (42.132.01), ABS, BV, DNV, GL, LR, CE