

Classifications

EN ISO 2560-A	AWS A5.1 / SFA-5.1
E 35 4 B 4 2 H5	E6018 (mod.)

Characteristics and typical fields of application

Basic coated electrode for ductile and crack resistant joint welding of un- and low alloyed steels. The weld metal shows excellent toughness values down to -40°C . The strength of the weld metal is in comparison with other basic coated electrodes very low and is aligned to the strength of unalloyed steels. There are also high toughness values in aged condition. Low hardness level (≤ 210 HV). This electrode is ideally suited to the requirements of welding ammonia tanks.

Base materials

Steels up to a yield strength of 355 MPa (51 ksi)
 S235JR-E295, S235J2G3 - S355J2G3, C22, P235T1-P275T1, P235T2, P275T2, L210 - L320, L290MB - L320MB, P235G1TH, P255G1TH, P235GH, P265GH, P295GH, S235JRS1 - S235J4S, S355G1S - S355G3S, S255N - S355N, P255NH-P355NH, S255NL - S355NL, GE200-GE240 ASTM A 27 u. A36 Gr. alle; A214; A 242 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, 60, 65, 70; A570 Gr. 30, 33, 36, 40, 45; A 572 Gr. 42, 50; A606 Gr. all, A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A841; A851 Gr. 1, 2; A935 Gr.45; A936 Gr. 50; API 5 L Gr. B, X42-X52

Typical analysis


	C	Si	Mn
wt.-%	0.06	0.3	1.0

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R_e	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J		Hardness HV
	MPa	MPa		20°C	-40°C	
u	380 (≥ 355)	500 ($\geq 440 - 570$)	30 (≥ 22)	170	120 (≥ 47)	≤ 210

u untreated, as welded

Operating data

	Polarity	DC +	Dimension mm	Current A
	Electrode identification	FOX EV 40 ~6018 E 35 4 B	2.5 x 250	80 – 110
	Redrying	300-350°C/2h	3.2 x 350	100 – 140
			4.0 x 350	140 – 180

Approvals

CE