

Classifications

EN ISO 2560-A	EN ISO 2560-B	AWS A5.1 / SFA-5.1	AWS A5.1M
E 38 2 RB 1 2	E 4303 AU	E6013	E4313

Characteristics and typical fields of application

Excellent vertical up welding characteristics; easy handling in out of position work; particularly suitable for fabricating radiographically sound circumferential pipe welds; good porosity-free root weld fusion, also in tight air gaps.
Useable in pipeline, boiler and tank construction, structural steel work and shipbuilding.

Base materials

Steels up to yield strength of 380 MPa (52ksi)
S235JRG2 - S355J2; shipbuilding steels appr.-grade 3;
Boiler steels P235GH, P265GH, P295GH;
ASTM A36 u. A53 Gr. alle; A106 Gr. A, B, C; A135 Gr. A, B; A283 Gr. A, B, C, D; A366;
A285 Gr. A, B, C; A500 Gr. A, B, C; A570 Gr. 30, 33, 36, 40, 45; A607 Gr. 45; A668 Gr. A, B;
A907 Gr. 30, 33, 36, 40; A935 Gr. 45; A936 Gr. 50; API 5 L Gr. B, X42-X52


Typical analysis

	C	Si	Mn
wt.-%	0.08	0.20	0.55

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

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J	
	MPa	MPa	%	20 °C	- 20 °C
u	420 (≥ 380)	490 (≥ 470-600)	27 (≥ 22)	≥ 75	≥ 47

Operating data

	Polarity	DC - / AC	Dimension mm	Current A	
	Electrode identification	FOX Yellow / E 38 2 RB / E6013		2.0 × 250	30 - 75
				2.5 × 250	40 - 90
				2.5 × 350	40 - 90
				3.2 × 350	90 - 130
				4.0 × 350	140 - 190
				4.0 × 450	140 - 190
				5.0 × 450	190 - 250

Approvals

TÜV (01591), DB (10.014.56), ABS, BV, DNV, LR, CE