

Classifications

EN ISO 2560-A	AWS A5.5M	EN ISO 2560-B	AWS A5.5 / SFA-5.5
E 50 4 B 4 2 H5	E5518-G H4R	E5718-G A H5	E8018-G H4R

Characteristics and typical fields of application

Basic coated electrode for un- and low-alloyed steels with higher strength. Suitable for a carbon content up to 0.6 %. Approved by DB (Deutsche Bahn) for railway applications. Tough and crack resistant weld metal. Metal recovery about 115 %. Easy weldability in all positions except vertical-down. Very low hydrogen content (acc. AWS condition HD < 4 ml/100 g weld metal) with a moisture resistant coating.

Base materials

Constructional steels, pipe steels, rail steels

S460N, S460M, S460NL, S460ML, S460Q-S500Q, S460QL-S500QL, P460N, P460NH, P460NL1, P460NL2, L415NB, L415MB-L485MB, L415QB-L485QB, alform 500 M, aldur 500 Q, aldur 500 QL, GE300

ASTM A 572 Gr. 65; A 633 Gr. E; A 738 Gr. A; A 852; API 5 L X60, X65, X70, X60Q, X65Q, X70Q

Typical analysis

	C	Si	Mn
wt.-%	0.08	0.7	1.7


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	-40°C
u	580 (≥ 500)	630 (≥ 560 – 720)	26 (≥ 18)	170	90 (≥ 47)
s	560	610	26	130	

u untreated, as welded

s stress relieved 580 °C/2h / furnace down to 300 °C

Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX EV 63 8018-G E 50 4 B	2.5 × 350	80 – 110
	Redrying	if necessary 300 – 350°C, min. 2h	3.2 × 350	100 – 140
			4.0 × 450	140 – 180
			5.0 × 450	190 – 230

Approvals

TÜV (00730), DB (10.014.07 / 81.014.01), CE