

Classifications

EN ISO 3580-A	EN ISO 3580-B	AWS A5.5	AWS A5.5M
E CrMo9 B 4 2 H5	E6218-9C1M H5	E8018-B8	E5518-B8

Characteristics and typical fields of application

Basic alloyed core wire electrode for high temperature steels and steels for hot hydrogen service, particularly in the petrochemical industry. Preferably used for 9 % Cr 1 % Mo steels e.g. X12CrMo9-1 (P9). Approved in long-term condition up to +600 °C service temperature.

The weld metal is heat treatable. Metal recovery approx. 115 %.

Detailed information on welding technology available on request.

Base materials

Highly creep resistant steels, same alloyed

1.7386 X11CrMo9-1, 1.7388 X7CrMo9-1

ASTM A 182 Gr. F9; A 213 Gr. T9; A 217 Gr. C12; A 234 Gr. WP9; A 335 Gr. P9; A 336 Gr. F9; A 369 Gr. FB9; A 387 Gr. 9 u. 9CR; A 426 Gr. CP9; A 989 Gr. K90941

Typical analysis of all-weld metal (wt.-%)

	C	Si	Mn	Cr	Mo
wt-%	0.08	0.25	0.65	9.0	1.0

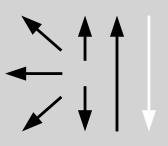
Mechanical properties of all-weld metal

Condition	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
a	610 (≥ 530)	730 (≥ 620)	20 (≥ 18)	70 (≥ 34)
v	600	730	25	100

a annealed, 760 °C/1 h / furnace down to 300 °C / air

v quenched/tempered, 930 °C/10 min / air 740 °C/2 h / air

Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	ø (mm)	L mm	Amps A
	DC (+)	300 – 350 °C, min. 2 h	FOX CM 9 Kb 8018-B8 E CrMo9 B	2.5	250	70 – 90
				3.2	350	100 – 130
				4.0	350	130 – 160

Preheating and interpass temperatures 250 – 350 °C. Post weld annealing at 710 – 760 °C for at least 1 h followed by cooling in furnace down to 300 °C and still air.

Approvals

TÜV (2183.), SEPROZ, CE