

Classifications

AWS A5.5 / SFA-5.5	AWS A5.5M	EN ISO 3580-A	EN ISO 3580-B
E8018-B2 H4	E5518-B2 H4	E CrMo1 B 4 2 H5	E5518-1CM H5

Characteristics and typical fields of application

Basic low hydrogen electrode for 1 % Cr 0.5 % Mo alloyed boiler, plate, and tube steels. Approved in long-term exposure up to +1380°F service temperature. Fully alloyed core wire which provides reliable creep rupture properties for the whole service life of a boiler plant. High ductility and crack resistance. The weld metal deposit is heat treatable. Very low hydrogen content (acc. AWS condition HD < 4 ml/100 g). Metal recovery approx. 115%. Suitable for step-cooling application.
Bruscatto < 15ppm. Post weld tempering at 1220°F – 1290°F for at least ½ hr followed by cooling in furnace down to 572°F and still air.

Base materials

Creep resistant steels and similar alloyed cast steels, case hardening and nitrite able steels of similar chemical composition, similar alloyed heat treatable steels with tensile strength up to 113 ksi, steels resistant to caustic cracking.
1.7335 13CrMo4-5, 1.7262 15CrMo5, 1.7728 16CrMoV4, 1.7218 25CrMo4, 1.7225 42CrMo4, 1.7258 24CrMo5, 1.7354 G22CrMo5-4, 1.7357 G17CrMo5-5.
ASTM A 182 Gr. F12; A 193 Gr. B7; A 213 Gr. T12; A 217 Gr. WC6; A 234 Gr. WP11; A335 Gr. P11, P12; A 336 Gr. F11, F12; A 426 Gr. CP12

Typical analysis

	C	Si	Mn	Cr	Mo	P	Sb	Sn	As
wt.-%	0.09	0.3	0.8	1.2	0.5	≤ 0.010	≤ 0.005	≤ 0.005	≤ 0.005

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	
	ksi	ksi	%	68°F	-4°F
T	73 (≥ 67)	87 (≥ 80)	25 (≥ 20)	118 (≥ 35)	118
QT	55	75	28	145	-

T: tempered (1256°F / 1h)

QT: quenched and tempered (1706°F / 0.5 h / air 1256°F / 10 h)

Operating data

	Polarity	DC+	Dimension inch	Current A
	Electrode identification	FOX DCMS Kb 8018-B2 E CrMo1 B	3/32" × 10"	80 – 110
			3/32" × 14"	80 – 110
	Redrying	525 - 625°F / 2h	1/8" × 14"	100 – 140
			5/32" × 14"	130 – 180
			5/32" × 18"	130 – 180
			~3/16" × 18"	180 – 220

Approvals

TÜV (00728.), DB (10.014.42), ABS, DNV