

## MMA Electrodes Chromium-Molybdenum steels

CROMO E225 is a basic coated MMA electrode for welding creep resistant and high-pressure, hydrogen resistant steels used in the fabrication of pressure vessels, boilers and pipework with operating temperatures <600 °C. The weld metal deposited is low in residual and impurity elements and therefore largely insensitive to in-service embrittlement, demonstrated by simulated heat treatment: STC = step cooling. X-factor <15 ppm and J-factor <120.

Classification	
EN ISO	3580-A: E CrMo2 B 2 2 H5
AWS	A5.5: E 9015-B3 H4
EN 1599	E CrMo2 B 2 2 H5

Approvals	Grade
TÜV	●

CE

### Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Mo
0.1	0.7	0.25	≤ 0.010	≤ 0.010	2.3	1.1







### All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				-20 °C	-40 °C
690 °C x 1 h	≥ 540	≥ 630	≥ 19	≥ 70	≥ 54
690 °C x 8 h	≥ 450	≥ 620	≥ 18	≥ 70	≥ 54

### Materials

10CrMo9-10, 12CrMo9-10; A387 Gr.22, Cl 1, Cl2, A 182 Gr.F 22, A 336 Gr.F22

Storage
Keep dry and avoid condensation.
HD ≤ 5: Re-dry at 340-360 °C for 2 hour, 5 times max.

Current condition and welding position					
DC+					
					
PA	PB	PC	PD	PE	PF

### Packaging data

Diam. (mm)	Length (mm)	Current (A)	Approx. weight (kg/1000)	CBOX	
				PC	Code
2.5	300	65-95	17.3	170	●
3.2	350	85-130	33.5	120	●
4.0	450	130-170	60.2	90	●
5.0	450	150-220	94.9	55	●