

## MMA Electrodes Chromium-Molybdenum steels

Basic coated electrode for welding creep resistant steels used for the fabrication of pressure vessels, boilers and pipes, with operating temperatures of up to +570 °C. Due to its double coating (up to 3,2 mm) this electrode features a stable and concentrated arc, making it well-suited for root pass and positional welding. Welds are of X-ray quality. Preheating, interpass temperature and post-weld heat treatment depend on the base metal. X factor max 15ppm and J factor max 150ppm.

Classification	
AWS	A5.5: E8018-B2-H4
EN	1599: E CrMo 1 B 42 H5

Approvals	Grades
DB	
TÜV	

see Appendix, Classification Society Approvals, for details pag. 521

### Analysis of all-weld metal (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	V	N	Cu
0.07	0.70	0.30	≤ 0.012	≤ 0.010	1.10	-	0.60	-	-	-	-

### All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	Elongation A5 (%)	Impact Energy ISO - V (J) + 20 °C	Hardness
PWHT 690 °C x 2 h	≥ 490	560-720	≥ 22	≥ 120	-
920°Cx0,5h/air+700°Cx0,5h	≥ 300	450-550	≥ 26	≥ 130	-

### Materials

13CrMo4-5, 13CrMoSi5-5; G17CrMo5-5

### Storage and redrying

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

### Current condition and welding position

DC+



### Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
2,5	350	60-85	20,7	12,8
3,2	350	100-130	34,3	22,2
4,0	350	140-180	52,8	32,0
5,0	450	190-230	109,1	65,0