

## MMA Electrodes Chromium-Molybdenum steels

Basic coated electrode for welding creep resistant and higher strength steels used in the fabrication of pressure vessels, boilers and pipes, subjected to operating temperatures of up to +500 °C. Due to its double coating (up to 3,2 mm) this electrode has a stable and concentrated arc, making it well-suited for positional welding. Welds are of X-ray quality. Preheating, interpass temperature and post-weld heat treatment depend on the base metal.

Classification	
AWS	A5.5: E7018-A1-H 4
EN	499: E 50 4 Mo B 42 H5
EN	1599: E Mo B 42 H 5

Approvals	Grades
ABS	
DB	
DNV	
RS	
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
0.06	1	0.40	-	-	-	-	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) - 40 °C	Hardness
PWHT 620 °C x 1 h	≥ 500	560-720	≥ 22	≥ 60	-
As Welded	≥ 500	560-720	≥ 22	≥ 60	-

### Materials

S(P)235-S(P)500, 16Mo3

### Storage and redrying

Keep dry and avoid condensation.

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

HD ≤ 10: Re-dry at 300-350 °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	65-90	20,8	12,3
3,2	350	90-130	34,8	21,2
4,0	450	140-180	68,5	43,2
5,0	450	190-230	111,9	68,0