

MMA Electrodes Chromium-Molybdenum steels

Low-hydrogen MMA electrode for welding of low-alloyed steels 3.0% Cr, 1.0% Mo, V. Applications in the chemical industry include hydrocracking and synthesis of ammonia.

X Factor <15ppm and J Factors <120ppm.

Suitable for step cooling applications.

Classification

AWS	A5.5: E 9015-G
EN	1599: E Z B 22 H5

Approvals

Grades

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

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	V	N	Cu
0.11	0.70	0.20	≤ 0.010	≤ 0.010	3	-	1	0.012	0.25	-	-

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO - V (J) -18°C	Hardness
PWHT 710°C x 8h	≥ 400	550 - 750	≥ 18	≥ 54	-

Materials

SA182 GrF3V; SA542 Tp G Cl4A

SA832 Gr21V

Storage and redrying

Keep dry and avoid condensation.

HD ≤ 5: Re-dry at 400-420 °C for 1 hour, once only.

Current condition and welding position

DC+; AC



Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
3,2	350	85 - 130	33,3	19,5
4,0	450	140 - 170	62,2	37,5
5,0	450	180 - 230	109,1	58,2