

MMA Electrodes High-strength steels

Basic coated electrode producing high-strength and tough welded joints. Weld deposit is of extremely high metallurgical purity and very low hydrogen content. Despite the very high yield strength ($R_{p0,2} > 950 \text{ N/mm}^2$ for 3,2 and 4,0 mm), the weld metal has good elongation and Charpy toughness (typically 40-50 J at -40°C). Welds are of X-ray quality.

Classification

AWS A5.5: ~ E 14018-M-H4

Approvals

Grades

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

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	V	N	Cu
0.08	1.30	0.30	≤ 0.010	≤ 0.012	0.70	3.70	1.10	-	-	-	-

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation A5 (%)	Impact Energy ISO - V (J) - 40°C	Hardness
As Welded	≥ 950	1000-1100	≥ 15	≥ 27	-

Materials

Fine grain steels with $YS > 900$, S960QL

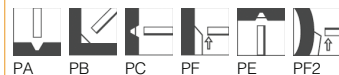
Storage and redrying

Keep dry and avoid condensation.

HD ≤ 5 : Re-dry at $340-360^\circ \text{C}$ 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	65-95	20,0	11,9
3,2	350	90-135	34,1	20,5
4,0	450	140-185	68,2	41,0
5,0	450	180-240	108,6	65,2