

## MMA Electrodes C-Mn and low-alloy steels

Rutile-cellulosic coated general-purpose electrode for structural steelwork, workshop and maintenance welding, specially suited for vertical-down welding and tack-welds. Good gap bridging. Can be used on galvanized, primer painted and slightly rusted parts. In assembly welding, this electrode can be used with the same current setting in all positions. Smooth, slightly concave welds blending into base metal without undercut. Slag in most cases self-releasing. Efficiency 100%.

Classification	
AWS	A5.1:E6013
EN	499: E 38 0 RC 11
EN ISO	2560-A: E 38 0 RC 11

Approvals	Grades
ABS	
BV	
DB	
DNV	
GL	
LRS	
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
0.08	0.50	0.30	-	-	-	-	-	-	-	-	-

### 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
As Welded	≥ 380	470-600	≥ 22	≥ 60	-

### Materials

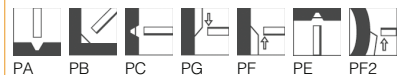
S(P)235 to S(P)355; GP240; GP280

### Storage and redrying

Keep dry and avoid condensation. Re-drying not generally required.  
If necessary: 100-110 °C for 1 hour.

### Current condition and welding position

AC; DC-



### Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
2,0	250	50-60	7,8	3,0
2,5	350	60-85	16,2	10,3
3,2	350	90-130	28,0	17,7
4,0	350	140-180	43,0	27,3
5,0	350	180-240	67,5	42,0