

MMA Electrodes C-Mn and low-alloy steels

Basic coated electrode producing tough and crack-free welded joints, also suited for welding steels having a carbon content of up to 0,6 %. The weld metal has a very low hydrogen content and is resistant to ageing. Approved for rail joint welding. Very good gap bridging properties. Owing to its double coating (up to 3,2 mm) this electrode features a stable and concentrated arc and is therefore well-suited for positional welding. Welds are of X-ray quality. CTOD-tested for offshore applications.

| Classification | |
|----------------|------------------------|
| AWS | A5.1: E7018-1-H4 |
| EN | 499: E 42 6 B 42 H 5 |
| EN ISO | 2560-A: E 42 6 B 42 H5 |

| 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 |
|------|------|------|---------|---------|----|----|----|----|---|---|----|
| 0.06 | 1.50 | 0.30 | ≤ 0.015 | ≤ 0.012 | - | - | - | - | - | - | - |

All-weld metal Mechanical Properties

| Heat Treatment | Yield Strength N/mm ² | Tensile Strength N/mm ² | Elongation A5 (%) | Impact Energy ISO - V (J) - 60 °C | Hardness |
|--------------------|-------------------------------------|---------------------------------------|----------------------|---|----------|
| PWHT 580 °C x 15 h | ≥ 420 | 500-640 | ≥ 25 | ≥ 90 | - |
| As Welded | ≥ 420 | 500-640 | ≥ 25 | ≥ 90 | - |

Materials

S(P)235-S(P)420, GP240-GP280; L245-L415

Storage and redrying

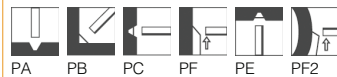
Keep dry and avoid condensation.

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 | 65-95 | 19,9 | 12,3 |
| 3,2 | 350 | 90-140 | 33,7 | 21,2 |
| 4,0 | 450 | 140-185 | 66,9 | 43,2 |
| 5,0 | 450 | 180-240 | 106,3 | 67,0 |