

MMA Electrodes High-strength steels

TENACITO 80 is a basic coated MMA electrode for reliable, crack-free and tough welded joints on steels with a yield strength <700 MPa. The weld metal is of extremely high metallurgical purity, is ageing-resistant, retaining good ISO-V toughness to -60°C. Very low hydrogen content. Due to the double coating of the 2.5 mm and 3.2 mm sizes, the arc is both stable and concentrated, even at lower welding currents when positional welding, with good gap bridging characteristics. Welds are of X-ray quality.

| Classification | |
|----------------|--------------------------------|
| EN | 757: E 69 6 Mn2NiCrMo B 4 2 H5 |
| AWS | A5.5: E 11018-G H4 |

| Approvals | Grade |
|-----------|-----------|
| ABS | E 11018-G |
| DNV | 4Y69H5 |
| GL | 3Y69 H5 |
| RMRS | 3Y69HHH |
| TÜV | ● |

CE

Chemical analysis (Typical values in %)

| C | Mn | Si | P | S | Cr | Ni | Mo |
|------|-----|-----|---------|---------|-----|-----|------|
| 0.06 | 1.8 | 0.4 | ≤ 0.020 | ≤ 0.012 | 0.4 | 2.3 | 0.45 |

All-weld metal Mechanical Properties

| Heat Treatment | Yield Strength (MPa) | Tensile Strength (MPa) | Elongation A5 (%) | Impact Energy ISO - V (J) | | |
|----------------|----------------------|------------------------|-------------------|---------------------------|--------|--------|
| | | | | +20 °C | -20 °C | -60 °C |
| As Welded | ≥ 790 | 850-960 | ≥ 16 | ≥ 100 | ≥ 60 | ≥ 47 |

Materials

S(P)690; L415-L555

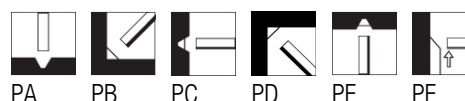
Storage

Keep dry and avoid condensation.

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

Current condition and welding position

DC+



Packaging data

| Diam. (mm) | Length (mm) | Current (A) | Approx. weight (kg/1000) | CBOX | | VPMD | |
|------------|-------------|-------------|--------------------------|------|------|------|------|
| | | | | PC | Code | PC | Code |
| 2.5 | 350 | 65-95 | 19.8 | 225 | ● | 110 | ● |
| 3.2 | 350 | 90-135 | 34.3 | 125 | ● | 60 | ● |
| 4.0 | 450 | 140-185 | 68.3 | 80 | ● | 35 | ● |
| 5.0 | 450 | 180-240 | 110.5 | 45 | ● | 20 | ● |