# **SUPRADUR VF1000**



## MMA Electrodes Hardfacing

Special MMA electrode with a flux cored wire used as core wire, for hardfacing of steels where a very high resistance against abrasion is required. Applications: hardfacing of pieces in contact with sand, clay and similar materials like drilling tools, mixer blades, parts of earth moving machines. Weld metal is not machinable.

Hardness in as welded condition: 57-62 HRC

| Classification |                     |  |  |  |  |
|----------------|---------------------|--|--|--|--|
| DIN            | 8555: E 10 UM 60 RZ |  |  |  |  |
| EN             | 14700: E Fe14       |  |  |  |  |

| Approvals | Grades |
|-----------|--------|
|           |        |

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

| С   | Mn     | Si     | P       | S       | Cr    | Ni | Mo   | Nb | Fe | W | Cu |
|-----|--------|--------|---------|---------|-------|----|------|----|----|---|----|
| 3-4 | 1-1.50 | 1-1.50 | ≤ 0.030 | ≤ 0.030 | 30-38 | -  | 0.50 | -  | -  | - | -  |

**All-weld metal Mechanical Properties** 

| Heat Treatment  | Yield<br>Strength<br>N/mm <sup>2</sup> | Tensile<br>Strength<br>N/mm² | Elongation<br>A5 (%) | Impact Energy<br>ISO - V (J) | Hardness   |
|-----------------|--|------------------------------|----------------------|------------------------------|------------|
| PWHT 620°C x 1h | -                                      | -                            | -                    | -                            | 640-740 HB |

### Storage and redrying

Keep dry and avoid condensation. Re-drying not generally required.

If necessary: 300-350 °C for 2 hours, 5 times max.

# Current condition and welding position

AC; DC+

#### Packaging data

| Diameter<br>(mm) | Length<br>(mm) | Current<br>(A) | Electrode<br>average weight (g) | Weld metal weight per electrode (g) |  |  |
|------------------|----------------|----------------|---------------------------------|-------------------------------------|--|--|
| 3,2              | 350            | 90-130         | 45,0                            | 36,0                                |  |  |
| 4,0              | 350            | 125 - 170      | 68,0                            | 54,4                                |  |  |
| 5,0              | 350            | 170 - 220      | 106,0                           | 84,8                                |  |  |