



# OK Femax 38.65

**High-recovery zircon-basic MMA electrode for mild and low-alloy steels**

## General Description:

High-recovery zircon-basic electrode, especially developed for making butt welds and flat positioned fillet welds in standard and high-tensile steels. Excellent operability with easy slag removal and nice bead appearance with regular profile.

## Typical Application:

OK 38.65 is suitable for welding fillet and V-butt welds in the horizontal position. It is also suitable for welding in the horizontal-vertical position.

## Typical All-Weld Metal Mechanical Properties:

| Yield Stress | U.T.S.  | Elongation |
|--------------|---------|------------|
| 430 MPa      | 540 MPa | 30 %       |

## Impact Toughness:

|        |       |
|--------|-------|
| at 0°C | 160 J |
| -20°C  | 110 J |
| -40°C  | 65 J  |
| -60°C  | 50 J  |

## Welding data for horizontal fillets. OK Femax 38.65

| Throat thickness mm | Electrodes dimension s (mm) | Current A | Travel Speed m/h | Run length per electrode mm |
|---------------------|-----------------------------|-----------|------------------|-----------------------------|
| 4                   | 4                           | 210       | 17               | 360                         |
| 4.5                 | 4                           | 210       | 14               | 310                         |
| 4.5                 | 5                           | 280       | 20               | 480                         |
| 5                   | 5                           | 300       | 17               | 370                         |
| 5.5                 | 5                           | 300       | 14               | 320                         |
| 5.5                 | 6                           | 360       | 20               | 470                         |
| 6                   | 6                           | 360       | 17               | 400                         |

## Typical All-Weld Metal Composition (Wt%):

| C    | Si   | Mn  | P      | S      |
|------|------|-----|--------|--------|
| 0.07 | 0.45 | 1.1 | < 0.02 | < 0.02 |

## Welding Positions:

Horizontal position

## Classifications:

|                |                 |
|----------------|-----------------|
| AWS A/SFA 5.1: | E 7028          |
| DIN 1913:      | E 51 55 B12 160 |
| EN 499:1994    | E 42 4 B 73 H5  |
| ISO 2560:      | E 51 5B 170 36H |

## Approvals:

|            |                 |
|------------|-----------------|
| ABS:       | 3HH 3Y          |
| BV:        | 3 3YHH          |
| Controlas: | HRS 3/3YHH      |
| DB:        | 10.039.15/QS    |
| DnV:       | 3YHH            |
| DS:        | E51 4B(H)       |
| GL:        | 3YHH            |
| LR:        | 3 3YH           |
| PRS:       | 3YHH            |
| SS:        | 143211-H10      |
| SFS:       | E 5150 H10 3    |
| TÜV:       | Eignungsgeprüft |

**Packaging Information:**

|                                  |     |     |     |     |     |
|----------------------------------|-----|-----|-----|-----|-----|
| Diameter (mm)                    | 3.2 | 4.0 | 5.0 | 6.0 | 7.0 |
| Length (mm)                      | 450 | 450 | 450 | 450 | 450 |
| Box weight (kg)                  | 5.5 | 5.5 | 5.5 | 5.5 | 5.3 |
| Approx. No of Electrodes per Box | 83  | 54  | 36  | 25  | 19  |

**OK 38.65 is also available in VacPac®.**

|                                  |     |     |     |     |
|----------------------------------|-----|-----|-----|-----|
| Diameter (mm)                    | 3.2 | 4.0 | 5.0 | 6.0 |
| Length (mm)                      | 450 | 450 | 450 | 450 |
| Box weight (kg)                  | 2.5 | 2.0 | 2.3 | 2.0 |
| Box size                         | H   | H   | H   | H   |
| Approx. No of Electrodes per Box | 38  | 20  | 15  | 9   |

Size: Q= quarterpack, H= halfpack

**Welding Current: AC OCV min.50V, DC positive, negative**

| Dimensions (mm)<br>Diam x length | Current range<br>(A) | Weight<br>W | Deposition data |     |      |      |    |
|----------------------------------|----------------------|-------------|-----------------|-----|------|------|----|
|                                  |                      |             | eta             | N   | B    | H    | T  |
| 3.25 X 450                       | 100 - 170            | 6.5         | 165             | .66 | 23.6 | 2.30 | 67 |
| 4.00 X 450                       | 170 - 240            | 9.6         | 165             | .68 | 14.4 | 3.70 | 70 |
| 5.00 X 450                       | 225 - 355            | 15.3        | 165             | .69 | 9.6  | 5.70 | 72 |
| 6.00 X 450                       | 300 - 430            | 22.0        | 165             | .68 | 6.6  | 7.20 | 80 |
| 7.00 X 450                       | 340 - 490            | 27.9        | 165             | .70 | 5.1  | 8.50 | 88 |

- W Weight, kg/100 pcs  
eta Efficiency %, g weld metal X 100/g core wire  
N Effective value, kg weld metal/kg electrodes  
B Changes, number of electrodes/Kg weld metal  
H Deposition rate, kg weld metal/hour arc time at 90% of max. current  
T Fusion time, sec's/electrode at 90% of max. current  
V Arc voltage, volt

We reserve the right to change specifications without notice.



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