

# ESAB 46



## A rutile coated general-purpose electrode for MMAW

Classification AWS A5.1: E 6013  
IS: 814 ERR 4221X



### DESCRIPTION

ESAB 46 is a heavy rutile coated electrode of excellent performance characteristics for welding of mild steel, structural steel, pressure vessels and of quality ship plates. It has very good slag detachability and shiny bead appearance. Provides welds of high radiographic soundness.

### APPROVALS

CIB, MMD, PDIL.

**WELDING CURRENT:** DC $\pm$ , AC 50V

### TYPICAL APPLICATIONS

Boiler and pressure vessels, bogies and under frames of carriages and wagons, cranes, shipbuilding, storage tanks, bridges and dams, machine building, heavy structural work, etc.

### TYPICAL ALL WELDMETAL PROPERTIES

| Chemical Composition (%) |       |    |       | Mechanical Properties |                       |
|--------------------------|-------|----|-------|-----------------------|-----------------------|
| C                        | 0.09  | Mn | 0.60  | YS                    | 440 N/mm <sup>2</sup> |
| Si                       | 0.35  | S  | 0.025 | UTS                   | 520 N/mm <sup>2</sup> |
| P                        | 0.025 |    |       | EL (L=5d)             | 26%                   |
|                          |       |    |       | Impact (CVN) at 0°C   | 65J                   |

### CURRENT RANGE & PACKING DATA

| Size (mm) | Length (mm) | Current Range (Amps) | No. of Electrodes in a |               |
|-----------|-------------|----------------------|------------------------|---------------|
|           |             |                      | Carton                 | Cardboard box |
| 2.50      | 350         | 55-105               | 150                    | 600           |
| 3.15      | 450         | 95-130               | 100                    | 400           |
| 4.00      | 450         | 140-190              | 65                     | 240           |
| 5.00      | 450         | 160-250              | 40                     | 160           |

**PACKING:** Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box.