# UTP 65 D

Rutile-coated austenitic-ferritic special stick electrode

## Classifications

| EN ISO 3581-A | EN 14700 | Material-No. |
|---|---|---|
| E Z 29 9 R 1 2 | E Z Fe11 | 1.4337 |

## Characteristics and typical fields of application

UTP 65 D has been developed to meet the highest requirements for repair and surfacing. It is extremely crack-resistant when joining steels of difficult weldability, such as e. g. hard manganese steels, tool steels, spring steels, high speed steels as well as dissimilar metal joints. Due to the good corrosion and abrasion resistance and high tensile strength UTP 65 D finds its application particularly in repair and maintenance of machine and drive components, such as gears, cams, shafts, hot cuts, hot trim plates and dies. Also ideally suited as an elastic cushioning layer for very hard surfacing. UTP 65 D has outstanding welding properties. Stable arc, spatter-free. The finely rippled seam has a homogeneous structure, very good slag removal, self-lifting on parts. Stainless and work-hardening. Good weldability in all positions. Hardness of the pure weld metal: approx. 260 HB

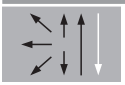
## Typical analysis

| | C | Si | Mn | Cr | Ni | Fe |
|---|---|---|---|---|---|---|
| wt.-% | 0.1 | 1.0 | 1.0 | 30.0 | 9.5 | bal. |

## Mechanical properties of all-weld metal - typical values (min. values)

| Yield strength $R_{p0.2}$ | Tensile strength $R_m$ | Elongation A ($L_0$=5$d_0$) |
|---|---|---|
| MPa | MPa | % |
| > 640 | > 800 | > 20 |

## Operating data



| Polarity | DC + / AC |
|---|---|
| Redrying | If required: 120 – 200 °C for 2 h |

| Dimension mm | Current A |
|---|---|
| 1.6 × 250* | 35 – 45 |
| 2.0 × 250 | 45 – 60 |
| 2.5 × 250 | 55 – 75 |
| 3.2 × 350 | 75 – 115 |
| 4.0 × 350 | 100 – 145 |
| 5.0 × 350 | 120 – 195 |

* available on request

## Welding instructions

Clean the welding zone thoroughly. Prepare X-, V- or U-groove on thickwalled workpieces with an angle of 60 - 80°. Preheat high-C-containing steels and solid workpieces to appr. 250° C. Keep stick electrode vertical and weld with a short arc, use stringer beads or slight weaving, as applicable. Redry stick electrodes that have got damp for 2 h / 120 – 200° C.

## Approvals

DB (82.138.01)

All information provided is based upon careful investigation and intensive research.
However, we do not assume any liability for correctness and information is subject to change without notice.