# UTP 65 D

rutile-coated austenitic-ferritic special stick electrode

| Classifications | | |
|---|---|---|
| EN ISO 3581-A | EN 14700 | Material-No. |
| E Z 29 9 R 12 | E Z Fe11 | 1.4337 |

## Characteristics and field of use

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

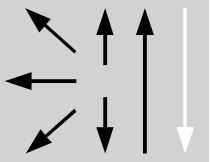
| Typical analysis in % | | | | | |
|---|---|---|---|---|---|
| C | Si | Mn | Cr | Ni | Fe |
| 0.1 | 1.0 | 1.0 | 30.0 | 9.5 | balance |

| Mechanical properties of the weld metal | | |
|---|---|---|
| Yield strength $R_{p0,2}$ | Tensile strength $R_m$ | Elongation A |
| MPa | MPa | % |
| > 640 | > 800 | > 20 |

## Welding instructions

Clean the welding zone thoroughly. Prepare X-, V- or U-groove on thick-walled workpieces with an angle of 60 - 80°. Preheat high-C-containing steels and solid workpieces to approx. 250° C. Hold stick electrode vertically and weld with a short arc, use stringer beads or slight weaving, as applicable. Re-dry damp stick electrodes for 2 h / 120 – 200° C.

## Welding positions



Current type DC (+) / AC

| Recommended welding parameters | | | | | | |
|---|---|---|---|---|---|---|
| Electrodes Ø x L [mm] | 1.6 x 250* | 2.0 x 250 | 2.5 x 250 | 3.2 x 350 | 4.0 x 350 | 5.0 x 350 |
| Amperage [A] | 35 – 45 | 45 – 60 | 55 – 75 | 75 – 115 | 100 – 145 | 120 – 195 |

*available on request