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| International standards | DIN 8555 | E 7-UM-200-K |
| | DIN EN 14700 | E Fe9 |
| | AWS A5.13-80 | E Fe Mn-B |

Characteristics

CARBODUR MnC deposits an austenitic manganese steel alloy containing 1,1% C and 13% Mn. A characteristic of this alloy is its ability to harden rapidly when cold worked under impact and compressive stresses. The electrode is primarily used for surfacing and building up manganese steel components such as crusher, jaws and hammers. The interpass temperature should be kept as low as possible and overheating of the weld metal should be avoided. It can also be used for welding similar railroad cross-sections. The metal-to-metal wear resistance is very good. The hardness on heavy cold working can in practise reach about 450 HB (approx. 45 HRC)

Typical applications

Digging teeth, crushing hammers, crusher plates, rollers, mining and earth-moving equipment.

Mechanical properties of all-weld metal

(typical values)

| Hardness as welded HB | Hardness after cold working HRC |
|-----------------------|---------------------------------|
| approx. 190 | approx. 44 - 48 |

Weld metal analysis (typical, wt. %)

| C | Mn | Si |
|-----|----|-----|
| 1,1 | 13 | 0,6 |

Current = + / ~ 65 V

Welding positions PA, PB, PC, PD, PE

Rebaking 1 h, 350 °C +/- 10 °C (if required)

| Dia./Length | Amperage (A) | Pcs./ packet | Pcs./ carton | kg / 1000 | kg / packet | kg / carton |
|-------------|--------------|--------------|--------------|-----------|-------------|-------------|
| 3,2 x 450 | 90 – 120 | 119 | 476 | 50,6 | 5,0 | 20,0 |
| 4,0 x 450 | 110 – 160 | 78 | 312 | 76,6 | 5,0 | 20,0 |
| 5,0 x 450 | 150 – 200 | 50 | 200 | 119,7 | 5,0 | 20,0 |

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