

CARBO 4351 B

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|--------------------------------|--------------|----------------|
| International Standards | Material No. | 1.4351 |
| | EN 1600 | E 13 4 B 20 |
| | AWS A 5.4 | E410NiMo-15 |
| | DIN 8555 | E5-UM-400-KRTZ |

Approvals

Characteristics and typical applications

CARBO 4351 B is a basic coated electrode for plating and joining equal and similar ferritic Cr-steels and cast steels.

The Alloy is highly suitable for welding on tough, corrosion resistant Continuous-Cast Rolls and also wear parts from the Steel Industry and Large machinery. Apart from corrosion resistance, it also has a further capability in protecting against cavitation and erosion.

Typical applications

Bridge store; depositions to thick areas of water, steam and gas fittings for operating temperatures to 450° C; rope pouring roles; on alloying buffer layers

Operating temperature

Base materials 1.4008 GX8CrNi13 1.4313 X4CrNi13-4 1.4313 GX5CrNi13-4

Recommendations for fabrication

Preheating and heat treatments as necessary for ferritic Cr-steels are not necessary

Mechanical properties of all-weld metal (typical values)

| Tensile strength R_m N/mm ² | Yield strength $R_{p0,2}$ N/mm ² | Elongation A_5 % | Impact strength ISO – V J + 20°C | Hardness HB |
|---|--|-----------------------|--|----------------|
| 1100 | 700 | 15 | > 40 | ca. 410 |

Weld metal analysis (typical, wt %)

| C | Si | Mn | Cr | Ni | Mo |
|------|-----|-----|----|-----|-----|
| 0,06 | 0,5 | 0,6 | 13 | 4,5 | 0,5 |

Current

= + / ~ , 50 V

Welding positions

PA, PB,

Rebaking

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

| Dia./Length | Amperage (A) | Pcs./packet | Pcs./carton | kg/1000 | kg/packet | kg/carton |
|-------------|--------------|-------------|-------------|---------|-----------|-----------|
| 2,5 x 300 | 40 - 80 | 263 | 1060 | 15,2 | 4,0 | 16,0 |
| 3,2 x 350 | 65 - 110 | 164 | 673 | 30,6 | 5,0 | 20,0 |
| 4,0 x 350 | 100 - 140 | 111 | 444 | 45,0 | 5,0 | 20,0 |

Rev.000