

CARBO 4431 MPR

International Standards

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|---------------|------------------|
| Material No. | 1.4431 |
| EN ISO 3581-A | E 20 10 3 L R 53 |
| AWS A 5.4 | E308MoL-26 |

Approvals

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Typical applications and characteristics

CARBO 4431 MPR is an AC-weldable, rutile coated electrode with a recovery of 160%, suitable for joining corrosion-proof CrNiMo steels of low carbon content as well as stabilised and non-stabilised steels of identical or similar characteristics which are resistant to chemical agents. Especially on base materials which are at a risk of cracking, The electrode can be used for joining austenitic to ferritic steels. Same suitability for joint welding heat treatable steels, stainless Cr-steels, manganese steels, screening steels to each other and to dissimilar steel types.

Operating temperature

- 60° C up to + 300° C

Base materials

| | |
|-------------------------|----------------------------|
| 1.4404 X2CrNiMo17-13-2 | 1.4436 X3CrNiMo17-13-3 |
| 1.4435 X2CrNiMo18-14-3 | 1.4408 GX5CrNiMo19-11-2 |
| 1.4409 GX2CrNiMo19-11-2 | 1.4571 X6CrNiMoTi17-12-2 |
| 1.4429 X2CrNiMoN17-13-3 | 1.4583 (G)X10CrNiMoNb18-12 |
| 1.4401 X5CrNiMo17-12-2 | |

Dissimilar joints of 1.4583 mit H I / H II, 17Mn 4, StE 355
P235GH / P256GH, P295GH, P355N

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 at - 60°C |
|--|---|--------------------------------|------------------------------------|
| 700 | 540 | 30 | 50 |

Weld metal analysis (typical, wt %)

| C | Si | Mn | Cr | Ni | Mo |
|--------|-----|-----|------|------|-----|
| ≤ 0,04 | 0,8 | 0,7 | 19,0 | 10,0 | 3,0 |

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 pcs. | kg / packet | kg / carton |
|-------------|--------------|-------------|-------------|---------------|-------------|-------------|
| 2,0 x 300 | 40 - 75 | 230 | 920 | 17,4 | 4,0 | 16,0 |
| 2,5 x 350 | 65 - 95 | 157 | 629 | 18,4 | 4,0 | 16,0 |
| 3,2 x 350 | 90 - 130 | 93 | 372 | 53,7 | 5,0 | 20,0 |
| 4,0 x 450 | 120 - 180 | 57 | 229 | 104,6 | 5,0 | 20,0 |
| 5,0 x 450 | 170 - 240 | 37 | 147 | 163,4 | 6,0 | 24,0 |