

CARBOWELD 625 B

International standards

| Material No. | 2.4621 |
|--------------|--------------------|
| DIN 1736 | EL-NiCr 20 Mo 9 Nb |
| AWS A5.11 | E NiCrMo-3 |

Typical applications and characteristics

CARBOWELD 625 B is lime coated nickel base electrode.

Suitable for joining and cladding stainless, heat resistant and cold tenacious steels as well as welding dissimilar materials for example low alloyed steels with Ni-base ore Cu-base alloys

The austenitic deposit is insensitive to hot-cracking and free of embrittlement at high as well as at low temperatures, non-scaling up to 1100° C, and cold tough down to -196° C.

No diffusion of carbon into the weld metal at high temperatures.

Used for service-temperatures of more than 300° C in Chemical Industry, Petrochemical Industry, glassworks, civil engineering, repairing and maintenance workshops.

Operating temperature - 196° C up to 550° C

| Base materials | 1.4558 | X2NiCrAlTi32-20 | 2.4856 | NiCr22Mo9Nb |
|----------------|--------|-----------------|--------|------------------|
| | 2.4631 | NiCr 20 TiAl | 2.4858 | NiCr21Mo |
| | 2.4605 | NiCr23Mo16Al | 1.5662 | X8Ni9 |
| | 2.4618 | NiCr22Mo6Cu | 1.5680 | X12Ni5 |
| | 2.4619 | NiCr22Mo7Cu | 1.5681 | GX10Ni5 |
| | 2.4630 | NiCr20Ti | 1.6907 | X3CrNiN18-10 |
| | 2.4641 | NiCr21Mo6Cu | 1.6967 | X3CrNiMoN18-4 |
| | 2.4660 | NiCr20CuMo | 1.4876 | X10NiCrAlTi32-20 |
| | 2.4951 | NiCr20Ti | | Alloy 800 |
| | 2.4816 | NiCr15Fe | 1.4959 | X8NiCrAlTi32-21 |
| | 2.4817 | LC-NiCu15Fe | | Alloy 800HT |

Mechanical properties of all-weld metal

(typical values)

| Tensile strength R _m N/mm² | Yield strength R _{p0,2} N/mm² | Elongation A₅ % | Impact strength ISO – V J at -196 ° C | |
|---------------------------------------|---|--------------------|---|--|
| 750 | 500 | 30 | 40 | |

Weld metal analysis

(typical, wt. %)

| С | Si | Mn | Cr | Ni | Мо | Nb | Fe |
|-------|-----|-----|----|-------|----|-----|-----|
| <0,03 | 0,6 | 1,2 | 22 | Basis | 9 | 2,7 | < 5 |

Current = +

Welding positions PA, PB, PC, PD, PE, PF

Rebaking 1 h, 300 °C + / - 10 °C (if required)

2.4851 NiCr23Fe

| Dia./Length | Amperage (A) | Pcs./ packet | Pcs./ carton | kg / 1000 | kg / packet | kg / carton |
|-------------|--------------|--------------|--------------|-----------|-------------|-------------|
| 2,5 x 300 | 50 - 70 | 219 | 874 | 18,3 | 4,0 | 16,0 |
| 3,2 x 350 | 70 – 100 | 140 | 559 | 35,8 | 5,0 | 20,0 |
| 4,0 x 350 | 90 – 120 | 95 | 380 | 52,5 | 5,0 | 20,0 |

Rev. 000

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.