

NiCrMo2

Comparable specifications

ASME SFA A 5.14: ERNiCrMo-2 (UNS N06002)
Werkstoff Nr.: 2.4665 (≈ 2.4613)

Description and applications*

* *Illustrative, not-exhaustive list*

High temperature nickel-chromium-iron-molybdenum alloy for welding nickel-chromium-molybdenum alloy (UNS number N06002) to itself, to other nickel-base alloys and to stainless steels, carbon steels and low-alloy steels, as well as for cladding / surfacing of steel with GMAW, GTAW and SAW processes. Characterized by excellent heat and oxidation resistance at temperatures up to 1200°C (2200°F), it shows also high resistance to chloride stress-corrosion cracking, to carburization, and to reducing or carburizing atmospheres.

This grade may be used for:

- welding of similar and dissimilar joints;
- cladding of steel;
- applications in the manufacturing of gas turbine engines components such as combustion chambers, afterburners and tail pipes (e.g. for aircrafts);
- applications in the manufacturing of industrial furnaces, where it is highly recommended because of its unusual resistance to oxidizing, reducing, and neutral atmospheres;
- use in petrochemical process equipments, mainly in the hot combustor zone sections;
- use in the power boiler and nuclear power industries.

Weldable base materials*

* *Illustrative, not-exhaustive list*

Alloy X - ASTM B366, B435, B572 having UNS number N06002.

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 660 N/mm²

Chemical composition*

* *For reference only values*

| C | Mn | Si | S | P | Ni | Cr | Mo | Co | Fe | W |
|------|------|------|-------|-------|------|-------|-------|------|-------|------|
| 0.05 | max | max | max | max | Rem. | 20.50 | 8.00 | 0.50 | 17.00 | 0.20 |
| 0.15 | 1.00 | 1.00 | 0.030 | 0.040 | | 23.00 | 10.00 | 2.50 | 20.00 | 1.00 |

Standard packaging data*

| Welding process | Product type | Ø mm (inches) | Packing type | Weight kg (lbs) | Length mm (inches) |
|-----------------|--------------|-----------------------------|-------------------------|--------------------|-----------------------|
| GMAW ** | filler wire | 0.80 - 1.20 (0.030 - 0.047) | spools BS300 / D300 | 15 (33) | n.a. |
| GTAW ** | filler rod | 1.60 - 4.00 (1/16 - 5/32) | cardboard boxes / tubes | 5 (11) | 1000 (39.4) |
| SAW ** | filler wire | 1.60 - 4.00 (1/16 - 5/32) | basket rims B450 | 25 (55) | n.a. |

* *Other sizes and packing types are available upon request*

** *GMAW: gas metal arc welding; GTAW: gas tungsten arc welding; SAW: submerged arc welding*

Marking

Each filler rod for GTAW welding is durably marked with an identification traceable to the unique product type. Welding filler materials wound on spools or in coils are durably marked on the coil or spool with an identification traceable to the unique product type.

The outside of each unit package is suitably labelled with at minimum the following data: grade, diameter, heat, lot no., classifications.

Customized labels are available upon request.

Lot classification

All our productions fulfil the **Class S3** requirements acc. to EN ISO 14344.