

## Classifications

|                          |             |
|--------------------------|-------------|
| EN ISO 18274             | AWS A5.14   |
| S Ni 6686 (NiCr21Mo16W4) | ERNiCrMo-14 |

## Eigenschaften und Anwendungsgebiete

High corrosion resistance in reducing and oxidizing environments.

Well suited for joining and surfacing on matching and similar wrought and cast alloys. For welding the cladded side of plates of matching and similar alloys e.g. flue gas desulphurization scrubber.

## Base materials

2.4602 – NiCr21Mo14W / Alloy 22–UNS N06022  
 2.4605 – NiCr23Mo16Al / Alloy 59 – UNS N06059  
 2.4606 – NiCr21Mo16W / Alloy 686 – UNS N06686  
 2.4819 – NiMo16Cr15W / Alloy C-276 – UNS N10276  
 16Mo3, ASTM A 312 Gr. T11/T12

## Typical analysis of solid wire (wt.-%)

|      | C    | Si   | Mn    | Cr   | Ni   | Mo | W   | Al  | Fe    |
|------|------|------|-------|------|------|----|-----|-----|-------|
| wt-% | 0.01 | 0.08 | < 0.5 | 22.8 | Bal. | 16 | 3.8 | 0.3 | < 1.0 |

**Structure:** Austenite

## Mechanical properties of all-weld metal

| Heat-treatment | Yield strength<br>R <sub>p0.2</sub> | Tensile strength<br>R <sub>m</sub> | Elongation<br>A (L <sub>0</sub> =5d <sub>0</sub> ) | Impact work<br>ISO-V KV J |
|----------------|-------------------------------------|------------------------------------|--|---------------------------|
|                | MPa                                 | MPa                                | %  | +20 °C                    |
| aw             | 450                                 | 760                                | 30   | 50                        |

## Operating data

|                              |   |                      |                       |
|------------------------------|---|----------------------|-----------------------|
| <b>Polarity:</b><br>DC ( + ) | <b>Shielding gas:</b><br>(EN ISO 14175) I1,<br>Z (ArHeHC-30/2/~0,1) | <b>ø (mm)</b><br>1.2 | <b>Spool:</b><br>B300 |
| Impulslichtbogen             |   |                      |                       |

## Welding instruction

| Materials                 | Preheating | Postweld heat treatment   |
|---------------------------|------------|---|
| Matching / similar steels | None       | None. If necessary, solution annealing at 1180 °C (2156 °F) / water |