

## Classifications

|                       |                           |
|-----------------------|---------------------------|
| <b>EN ISO 14343-A</b> | <b>AWS A5.9 / SFA-5.9</b> |
| W 19 9 H              | ER19-10H                  |

## Characteristics and typical fields of application

TIG rod of W 19 9 H / ER19-10H type for joining and surfacing applications on matching and similar creep resistant steel and cast steel grades. Creep resistant up to 700°C. Controlled microstructure with max. 5% ferrite.

## Base materials

1.4878 X8CrNiTi18-10, 1.4912 X7CrNiNb18-10, 1.4940 X7CrNiTi18-10, 1.4948 X6CrNi18-10  
AISI 304H, 321H, 347H

## Typical analysis

|       | C    | Si  | Mn  | Cr   | Ni  |
|-------|------|-----|-----|------|-----|
| wt.-% | 0.05 | 0.4 | 1.8 | 18.8 | 9.3 |

## Mechanical properties of all-weld metal - typical values (min. values)

| Condition | Yield strength $R_{p0.2}$ | Tensile strength $R_m$ | Elongation A ( $L_0=5d_0$ ) | Impact energy ISO-V KV J |
|-----------|---------------------------|------------------------|-----------------------------|--------------------------|
|           | MPa                       | MPa                    | %                           | 20°C                     |
| u         | 400 (≥350)                | 600 (≥550)             | ≥ 30                        | 100 (≥ 47)               |

u untreated, as-welded – shielding gas Ar

## Operating data

|  | <b>Polarity</b>                     | DC- | <b>Dimension mm</b> |
|--|-------------------------------------|-----|---------------------|
|  | <b>Shielding gas (EN ISO 14175)</b> | I1  | 1.6 x 1000          |
|  |                                     |     | 2.0 x 1000          |
|  |                                     |     | 2.4 x 1000          |
|  |                                     |     | 3.2 x 1000          |

Heat input max. 2.0 kJ/mm, interpass temperature max. 150°C.

Creep rupture properties according to matching high temperature steels / alloys.

Shielding gas: Ar

## Approvals

TÜV (19654), CE