

Classifications

| EN ISO 14343-A | EN ISO 14343-B | AWS A5.9 |
|----------------|----------------|----------|
| G 19 9 H | SS19-10H | ER19-10 |

Characteristics and typical fields of application

GMAW wire with controlled delta ferrite content (3-8 FN) for austenitic CrNi steels with increased carbon contents (e.g. 1.4948 / 304H), in the boiler, reactor and turbine fabrication. Approved in long-term condition up to +700 °C service temperature (300 °C in the case of wet corrosion).

Steels to German material no. 1.4550 and 1.4551 which are approved for the high temperature range up to 550 °C, can also be welded.

Base materials

Similar alloyed creep resistant steels

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

Typical analysis of solid wire (wt.-%)

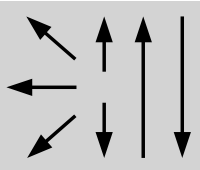
| | C | Si | Mn | Cr | Ni | | FN |
|------|------|-----|-----|------|-----|--|-----|
| wt-% | 0.05 | 0.4 | 1.6 | 18.8 | 9.3 | | 3-8 |

Mechanical properties of all-weld metal

| Condition | Yield strength R _{p0.2} | Tensile strength R _m | Elongation A (L ₀ =5d ₀) | Impact work ISO-V KV J | |
|-----------|-------------------------------------|------------------------------------|--|---------------------------|--------|
| | MPa | MPa | % | +20 °C | -10 °C |
| u | 400 (≥ 350) | 580 (≥ 550) | 38 (≥ 30) | 120 | ≥ 32 |

u untreated, as welded – shielding gas Ar + 2.5% CO₂

Operating data

| | | | |
|---|----------------------------|---|----------------------|
|  | Polarity: DC (+) | Shielding gases: Argon + max. 2.5 % CO ₂ | ø (mm) 1.2 |
|---|----------------------------|---|----------------------|

Interpass temperature should not exceed 200 °C.

Approvals

TÜV (4466.), CE, SEPROZ