

Classifications

| | | | |
|----------------|----------------|--------------------------|----------|
| EN ISO 21952-A | EN ISO 21952-B | AWS A5.28 | Mat. No. |
| G CrMo2Si | G 62 M21 2C1M3 | ER90S-G [ER90S-B3(mod.)] | 1.7384 |

Characteristics and typical fields of application

Medium alloy solid wire electrode for gas-shielded arc welding both with gas mixture and CO₂. Applications include the welding of creep resistant steels in boiler, tank, pipeline and reactor construction.

Base materials

1.7380 – 10CrMo9-10; 1.7383 – 11CrMo9-10; 1.7379 – G17CrMo9-10; 1.7382 – G19CrMo9-10
ASTM A 182 Gr. F22; A 213 Gr. T22; A 217 Gr. WC9; A 234 Gr. WP22; A 335 Gr. P22; A 336 Gr. F22; A 426 Gr. CP22

Typical analysis of solid wire (wt.-%)

| | C | Si | Mn | Cr | Mo |
|------|------|------|------|------|------|
| wt-% | 0.09 | 0.60 | 1.05 | 1.10 | 0.50 |

Mechanical properties of all-weld metal

| Heat-treatment | Shielding gas | 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 |
| a | M21* | 460 | 570 | 20 | 65 |

*Also weldable with CO₂, in this case the mechanical properties will change.

Operating data

| | | | | |
|---|------------------------------|---|---------------------------|-------------------------------|
|  | Polarity: DC (+) | Shielding gas: (EN ISO 14175) M1 – M3 und C1 | Ø mm 1.0 1.2 | Spool: B300 B300 |
|---|------------------------------|---|---------------------------|-------------------------------|

Approvals

TÜV (00907), DB (42.132.06), CE