

Low alloy solid wire

Classification

AWS A5.28-96 : ER80S-B2*
 EN 12070-99 : W CrMo1Si / G CrMo1Si

* Nearest classification

General description

Solid wire for welding creep and hydrogen resistant Cr-Mo steels
Service temperature up to 550°C

Shielding gases (acc. EN 439)

| | | |
|------|-----|---|
| GTAW | I1 | Inert gas Ar (100%) |
| GMAW | M21 | Mixed gas Ar+ >5 to 25% CO ₂ |
| | C1 | Active gas 100% CO ₂ |

Approvals

| | CTL | TÜV |
|------|-----|-----|
| GTAW | + | + |
| GMAW | + | + |

Chemical composition (w%), typical, wire / rod

| C | Mn | Si | Cr | Mo |
|-----|-----|-----|-----|-----|
| 0.1 | 1.0 | 0.5 | 1.2 | 0.5 |

Mechanical properties, typical, all weld metal

| | Process | Shielding gas | Condition | Yield strength (N/mm ²) | Tensile strength (N/mm ²) | Elongation (%) | Impact ISO-V(J) +20°C |
|----------------|---------|---------------|-------------|-------------------------------------|---------------------------------------|----------------|-----------------------|
| Typical values | GTAW | I1 | AW | 540 | 640 | 22 | 250 |
| | GTAW | I1 | SR 700°C/1h | 540 | 640 | 22 | 250 |
| | GMAW | M21 | AW | 480 | 590 | 24 | 125 |
| | GMAW | M21 | SR 700°C/1h | 530 | 635 | 23 | 160 |

Materials to be welded

| Steel | Code | Type |
|----------------------------|------------|-------------|
| Elevated temperature steel | EN 10028-2 | 13 CrMo4-5 |
| | EN 10083-1 | 25 CrMo 4 |
| | EN 10222-2 | 14 CrMo 4-5 |
| Toolsteel | DIN 17210 | 16 MnCr 5 |

Packaging

| Process | Unit | Sizes (mm) | | | | | | |
|---------|------------------|------------|-----|-----|-----|-----|-----|--|
| | | 0.8 | 1.0 | 1.2 | 1.6 | 2.0 | 2.4 | |
| GTAW | 2 and 5 kg tube | | | | X | X | X | |
| GMAW | 15 kg spool B300 | X | X | X | X | | | |

Other sizes and packaging on request

LNT/LNM 19: rev. EN 15