

## Classifications

|              |              |           |
|--------------|--------------|-----------|
| EN ISO 636-A | EN ISO 636-B | AWS A5.18 |
| W 42 5 W3Si1 | W 49A 5 W6   | ER70S-6   |

## Characteristics and typical fields of application

GTAW solid rod and wire for the welding with argon. Typical fields of use: boiler, tank and pipeline constructions and apparatus engineering.

## Base materials

Unalloyed structural steels up to a yield strength of 420 MPa (60 ksi)

S235JR-S355JR, S235JO-S355JO, S235J2-S355J2, S275N-S420N, S275M-S420M, S275NL-S420NL, S275ML-S420ML, P235GH-P355GH, P275NL1-P420NL1, P215NL, P265NL, P355N, P285NH-P420NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L245MB-L415MB, GE200-GE240

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, B, C, D; A 285 Gr. A, B, C; A 350 Gr. LF1, LF2; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 515 Gr. 60, 65, 70; A 516 Gr. 55, 60, 65, 70; A 570 Gr. 30, 33, 36, 40, 45; A 572 Gr. 42, 50, 55; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 607 Gr. 45; A 633 Gr. C, E; A 662 Gr. B; A 668 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60

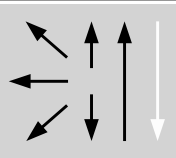
## Typical analysis of the TIG rods (wt.-%)

|      | C    | Si   | Mn   |
|------|------|------|------|
| wt-% | 0.08 | 0.85 | 1.50 |

## Mechanical properties of all-weld metal

| Heat-treatment | Shielding gas | Yield strength    | Tensile strength | Elongation                           | Impact work |        |
|----------------|---------------|-------------------|------------------|--------------------------------------|-------------|--------|
|                |               | R <sub>p0.2</sub> | R <sub>m</sub>   | A (L <sub>0</sub> =5d <sub>0</sub> ) | ISO-V KV J  |        |
|                |               | MPa               | MPa              | %                                    | +20 °C      | -50 °C |
| U              | I1            | 440               | 560              | 25                                   | 130         | 50     |

## Operating data

|  | Polarity: | Shielding gas:       | Marks:               | ø mm | L mm |
|---|-----------|----------------------|----------------------|------|------|
|   | DC (-)    | (EN ISO 14175) I 1-3 | ✦ W 3 Si 1 / ER70S-6 | 1.6  | 1000 |
|   |           |                      |                      | 2.0  | 1000 |
|   |           |                      |                      | 2.4  | 1000 |
|   |           |                      |                      | 3.2  | 1000 |

## Approvals

TÜV (01656), DB (42.132.119), DNV, CE