

Classification

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|------------------|---------------------|
| AWS A5.18 | EN ISO 636-A |
| ER70S-3 | W 42 5 2Si |

Characteristics and typical fields of application

Copper Coated mild steel GTAW rod with low Si content ~ 0.6% w.t and provide sufficient deoxidation. BOHLER S EML 5 is used for high integrity weld with excellent x-ray quality, It is suited for root pass welding and multi pass welding.

This filler metal particularly is used for joint welds that are subjected to enamelling or galvanising.

Base Materials

Steels up to a yield strength of 460 MPa (67 ksi)

S235J2G3 - S355J2G3, E360, P235T1-P355T1, P235G1TH, L210, L290MB, P255G1TH, P235GH, P265GH, P295GH, P310GH, P255NH, S235JRS1 - S235J4S, S355G1S - S355G3S, S255N - S385N, P255NH-P385NH, GE200-GE260

ASTM A27 a. A36 Gr. all; A214; A242 Gr.1-5; A266 Gr. 1, 2, 4; A283 Gr. A, B, C, D; A285 Gr. A, B, C; A299 Gr. A, B; A328; A366; A515 Gr. 60, 65, 70; A516 Gr. 55; A570 Gr. 30, 33, 36, 40, 45; A572 Gr. 42, 50; A606 Gr. all; A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A841; A851 Gr. 1, 2; A935 Gr.45; A936 Gr. 50; API 5 L Gr. B, X42-X60

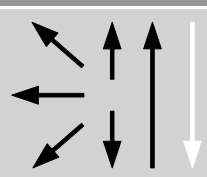
Typical analysis of solid wire (wt.- %)

| C | Si | Mn | P | S |
|------|------|------|---------|---------|
| 0.07 | 0.60 | 1.20 | ≤ 0.025 | ≤ 0.035 |

Mechanical properties of all-weld metal

| Heat treatment | Yield strength R _e N/mm ² | Tensile strength R _m N/mm ² | Elongation (L ₀ =4d ₀) | Impact work ISO-V KV J | |
|----------------|--|--|--|---------------------------|---------|
| | MPa | MPa | % | - 40 °C | - 50 °C |
| As Welded | 420 | 510 | 30 | 100 | 70 |

Operating data

| | | |
|---|-------------------------|-----------------------|
|  | Polarity DCEN | Shielding Gas : Argon |
|---|-------------------------|-----------------------|

Approval

ABS

| Size mm | Kg / Plastic tube | Amperage |
|---------|-------------------|-----------|
| 1.60 | 5.0 | 50 – 110 |
| 2.00 | 5.0 | 60 – 130 |
| 2.40 | 5.0 | 80 – 150 |
| 3.20 | 5.0 | 120 – 210 |