

Wire type:

TIG Solid wire

Current:



Welding positions:



Shielding gas:

I1 = Pure Ar

Fer SG 1A is our copper coated wire for TIG welding unalloyed and low alloyed galvanized structural steels. We have added Ti, Zr and Al to the wire, this makes Fer SG 1A ideal for welding oxidized (rusted) material and also coated plate (primed or painted). To be used in combination with tungsten electrodes type WS2 WITSTAR®.

Base materials to be welded:

- Ships plate A-E, A(H)32-E(H)36, S315G1S-S355G3S
- Structural steel S185-S355J2G3, St.33-St.52.3, C(K)10-C(K)35
- Boiler steel P235GH-P355GH, HI, HII, 17Mn4, 19Mn6
- Fine grain steel P275N-P355NL2, S275N-S420N, StE285-EStE355, StE285TM-EStE355TM
- Pipe steel P235T1-P355N, L210-L415MB, St37.0-St52.4, St45.8, X42-X60, StE210.7-StE360.7TM
- Cast steel GP240R, GS45

Applications:

- Shipbuilding & Offshore
- General fabrication & construction
- Power Generation
- Repair & Maintenance
- Transport & Lifting Industry

Equivalent product in alternative welding process:

| SMAW | GMAW | FCAW | GTAW | SAW | Gas welding / brazing |
|-----------|-----------------|------------|------|--------------|-----------------------|
| Red Extra | SG 1A Superflow | Hilcord 40 | - | H100 / HW530 | - |

Chemical composition, wt.% weld metal – typical:

| C | Mn | Si | S | P | Cr | Ni | Mo | Cu | Ti | Zr | Al |
|------|------|------|---------|---------|----|----|----|----|------|------|------|
| 0,06 | 1,10 | 0,50 | ≤ 0,030 | ≤ 0,025 | | | | | 0,15 | 0,12 | 0,15 |

Note: single values for Ti, Zr, Al are maximum values

Mechanical properties, weld metal – typical:

| Condition | 0,2% Yield strength MPa | Tensile strength MPa | Elongation Lo=5d - % | Impact Values ISO-V J |
|-----------|-------------------------|----------------------|----------------------|-----------------------|
| As welded | ≥ 420 | ≥ 520 | ≥ 27 | -20°C ≥ 80 |

Note: properties under pure Argon gas shielding

Packaging data:

| Dia. mm. | Length mm. | Weight / package kg. |
|----------|------------|----------------------|
| 1,6 | 1000 | 5 |
| 2,0 | 1000 | 5 |
| 2,4 | 1000 | 5 |