

Data sheet and application

DIM L-1.4122[©]

Material no.: 1.4122
DIN 8555: SG-X35CrMo17
DIN EN 14700: S Fe 8
EN ISO 14919: X 35 CrMo 17
AWS/ASME SFA-5.9: G 17 Mo H

Characteristics

Solid wire electrode for connection welding and plating on all stainless Cr-steels. Application welding of gas, water and steam fittings made of unalloyed or low-alloy steels and cast steel grades for operating temperatures up to + 450 ° C. Applications on hot-strength machine parts, valves, shafts, spindles.

Industry sectors:

Surgical cutlery, pumps & compressors, polymer processing, food industry, plastic mold construction.

Materials

For corrosion-resistant applications:

All weldable carrier materials unalloyed and low alloyed.

For connections:

Corrosion-resistant, heat-treatable Cr steels with C contents > 0.20%, e. g. ER420

Chemical composition

| C | Si | Mn | Cr | Mo | Ni |
|-----|-----|-----|------|-----|-----|
| 0,4 | 0,5 | 0,5 | 16,5 | 1,1 | 0,5 |

Certificate of batch upon request.

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Mechanical properties of pure weld metal

u* a*

| Yield strength Rp0.2 MPa | Tensile strength Rm MPa | Elongation A (L0=5d0) % | Impact Energy ISO-V KV J +20°C | Hardness HRC |
|-----------------------------|----------------------------|----------------------------|-----------------------------------|-----------------|
| 550 | 750 | 12 | | 45 |

u* untreated, welding state - base material unalloyed

Protection gas Ar + 8-10% CO₂

a* annealed, 720°C/2 h – protection gas Ar + 8-10% CO₂

The hardness of the weld metal is mainly influenced by the mixing with the respective base material and its chemical composition. The higher the mixing ratio and the C content of the base material, the higher the hardness of the weld metal. Protective gases with higher CO₂ contents also lead to higher hardness.

Processing instructions

Protection gases: Argon + 8-10% CO₂ / Argon + 3% O₂ or max. 5% CO₂
(M12 / M13)