

Technical Data Sheet

UGIWELD™ 25.9.4

Chemical composition (%)

| C | Si | Mn | Ni | Cr | Mo | Cu | N | W |
|--------|-------|-------|------------|-------------|-----------|-------|-----------|-------|
| ≤ 0.03 | ≤ 1.0 | ≤ 2.5 | 8.0 – 10.5 | 24.0 – 27.0 | 2.5 – 4.5 | ≤ 1.5 | 0.2 – 0.3 | ≤ 1.0 |

01-10-2021 – REV 05

Classification

Super Duplex grade

Designation

Material No.

| Europe – EN ISO 14343-A | USA – AWS A5.9 | Europe – WNr. |
|-------------------------|----------------|---------------|
| 25 9 4 N L | ER2594 | |

Other material name

| USA | France (AFNOR) | Germany (DIN) | UK (BS) | Sweden (S S) |
|-----|----------------|---------------|---------|--------------|
| | | | | |

Approvals

| | MIG | TIG | SAW |
|---------------|-----|-----|-----|
| TÜV (Germany) | X | X | |
| CE | X | X | X |
| DB | X | X | |

Mechanical properties

On as weld deposit (typical values)

| Temperature (°C) | -40°C | Room Temperature |
|------------------------|-------|------------------|
| Tensile strength (MPa) | | 800 |
| Yield strength (MPa) | | 650 |
| Elongation (%) | | 30 |

| | |
|------------------|-----|
| Impact ISO V (J) | 150 |
|------------------|-----|

Corrosion resistance

UGIWELD™ 25.9.4 is a high alloy duplex stainless steel (austenitic-ferritic) which shows:

- » Outstanding resistance to a wide range of highly corrosive media under oxidizing and reducing conditions.
- » High resistance to erosion corrosion and corrosion fatigue.
- » Excellent resistance to pitting and crevice corrosion and to stress corrosion cracking in chloride environment.
- » Very high mechanical strength.



Swiss Steel Group

Production sites: Ugitech SA
www.swisssteel-group.com

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Recommended welding conditions

UGIWELD™ 25.9.4 is used for welding of duplex, super-austenitic stainless steels and suitable for cladding a wide range of steels in particularly aggressive environments.

Available products

| Process | Shape | Diameter Range | Packaging | Weight |
|---------|-------|----------------|--------------------------|--------------|
| TIG | Rods | 1.0 – 4.0 mm | Cardboard tubes | 5 kg |
| | | 0.8 – 1.6 mm | Metallic spools – BS 300 | 15 – 18 kg |
| MIG | Wire | 0.8 – 1.2 mm | Plastic spools – D 200 | 5 kg |
| | | 0.8 – 1.2 mm | Plastic spools – D 300 | 15 kg |
| | | 1.0 – 1.6 mm | Plastic spools – D 350 | 25 – 27 kg |
| | | 0.8 – 1.2 mm | Pay off pack - Drums | 250 – 500 kg |
| SAW | Wire | 1.6 – 3.2 mm | Rims K415 / 300 / 94 | 20 – 25 kg |
| | | | Rims K435 / 300 / 70 | |

Contact us for dimensions

Applications

Welding of plates, sheets, and tubes in the chemical and petrochemical process industry (chloride environment), in the pulp and paper industry, pollution control equipment for environmental protection.



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