

## ER329N

TIG (GTAW)

SOLID WIRE FOR TIG

LOW ALLOY STEELS

## PRODUCT DESCRIPTION

Solid TIG wire for welding 2205 type duplex stainless steels.

## CLASSIFICATIONS

|             |               |
|-------------|---------------|
| AWS A5.9M   | ER2209        |
| ISO 14343-A | W 22 9 3 N L  |
| ISO 14343-B | SS2209        |
| Approvals   | DNV, TÜV, ABS |

## ASME IX QUALIFICATION

|       |        |
|-------|--------|
| QW432 | F-No 6 |
| QW442 | A-No 8 |

## CHEMICAL COMPOSITION (WIRE WT %)

|         | C     | Mn  | Si   | S     | P     | Cr   | Ni  | Mo  | Cu  | N     |
|---------|-------|-----|------|-------|-------|------|-----|-----|-----|-------|
| Min.    | --    | 1.0 | 0.25 | --    | --    | 22.5 | 8.0 | 3.0 | --  | 0.14  |
| Max.    | 0.03  | 2.0 | 0.65 | 0.020 | 0.030 | 23.5 | 9.5 | 3.5 | 0.3 | 0.20  |
| Typical | 0.015 | 1.6 | 0.5  | 0.001 | 0.015 | 23   | 8.2 | 3.2 | 0.1 | 0.17* |

Duplex weld metal microstructure with austenite + 30-50% ferrite.

Pitting resistance equivalent PREN = Cr + 3.3Mo + 16N is &gt; 35.

\* ER329N MIG spooled wire is selected for suitability for both MIG and auto-TIG, with typically 0.15%N to control porosity.

## ALL-WELD MECHANICAL PROPERTIES

| As welded                 | Min. | Typical     |
|---------------------------|------|-------------|
| Tensile strength [MPa]    | 690  | 790         |
| 0.2% proof strength [MPa] | 450  | 620         |
| Elongation [%] 4d         | 20   | 36          |
| 5d                        | 20   | 33          |
| Impact ISO-V(I) -30°C     | --   | 180 (> 140) |
| -50°C                     | --   | 180 (> 120) |
| -75°C                     | --   | 125 (> 70)  |
| Hardness HV               | --   | 270 (< 310) |
| HRC                       | --   | 23 (< 28)   |

## TYPICAL OPERATING PARAMETERS

| Shielding gas | Current | Diameter (mm) | Parameters |
|---------------|---------|---------------|------------|
| Argon         | DC-     | 1.6 / 2.4     | 100A, 12V  |

## PACKAGING DATA

| Diameter (mm) | Weight (kg) | Packaging | Item number |
|---------------|-------------|-----------|-------------|
| 1.2           | 2.5         | PE TUBE   | TER329N-12  |
| 1.6           | 2.5         | PE TUBE   | TER329N-16  |
| 2.0           | 2.5         | PE TUBE   | TER329N-20  |
| 2.4           | 2.5         | PE TUBE   | TER329N-24  |
| 3.2           | 2.5         | PE TUBE   | TER329N-32  |
| 3.2           | 5.0         | PE TUBE   | TER309M0-32 |

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to [www.specialalloys.eu](http://www.specialalloys.eu) for any updated information.