

MIG (GMAW)

ER329N

SOLID WIRE FOR MIG

PRODUCT DESCRIPTION

Solid MIG wire for welding 2205 type duplex stainless steels.

CLASSIFICATIONS

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

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 > 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  | 800-835     |
| 0.2% proof strength (MPa) | 450  | 560-620     |
| Elongation (%) 4d         | 20   | 28-35       |
| 5d                        | 20   | 30          |
| Impact ISO-V(I) -30°C     | --   | > 70        |
| -50°C                     | --   | > 60        |
| -75°C                     | --   | --          |
| Hardness HV               | --   | 270 (< 310) |
| HRC                       | --   | 23 (< 28)   |

TYPICAL OPERATING PARAMETERS

| Shielding gas             | Current | Diameter (mm) | Parameters |
|---------------------------|---------|---------------|------------|
| Ar / He / CO <sub>2</sub> | pulsed  | 1.2           | 180A, 28V  |

PACKAGING DATA

| Diameter (mm) | Weight (kg) | Packaging | Item number  |
|---------------|-------------|-----------|--------------|
| 0.8           | 15          | S300      | MER329N-08   |
| 0.9           | 15          | S300      | MER329N-09   |
| 1.0           | 1           | S200      | MER329NMS-10 |
| 1.0           | 15          | S300      | MER329N-10   |
| 1.2           | 15          | S300      | MER329N-12   |
| 1.6           | 15          | S300      | MER329N-16   |

FUME DATA (WT % TYPICAL)

| Fe | Mn | Cr <sup>3</sup> | Ni | Mo  | Cu    | OES (mg/m <sup>3</sup> ) |
|----|----|-----------------|----|-----|-------|--------------------------|
| 28 | 10 | 20              | 8  | 1.5 | < 0.5 | 2.5                      |

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.