

## MIGWELD 2209

MIG/MAG Wires [GMAW]

Stainless and high alloyed steels

| CLASSIFICATION:                                                                                         | APPROVALS: | APPLICATION:                                                                              |
|---------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------|
| EN ISO 14343-A : G 22 9 3 NL<br>DIN 8556 : SG-X2 CrNiMoN22 9 3<br>AWS A-5.9 : ER 2209<br>W.Nr. : 1.4462 |            | Power generation industry<br>Petrochemical and chemical industry<br>Shipbuilding&Offshore |

- High-alloyed welding wire for welding duplex steels.
- High resistance to intergranular corrosion, pitting and stress corrosion cracking.
- Used in all industries for welding and plating to obtain a corrosion resistant coating.

### Application

Filler material mainly for duplex type 2205. Used for general production pipelines in the offshore oil and gas industry and in the chemical industry. Suitable for steel plating. Paper machines, lye tanks, digesters for pulp and paper, cellulose fermenters, bleaching washers, pre-steaming vessels. Pressure vessels, pollution control equipment, Pipelines, heat exchangers for transporting gas and oil. Impellers, fans, shafts and press rolls requiring combined strength and corrosion resistance. Cargo tanks for ships and trucks, biofuel plants. Sea water cooler pipes, pulverized coal gasification coolers. In the production of urea: working pump body, pump valves, shut-off valves and all other elements most exposed to damage.

### Base material

| EN                                                                                            | W.Nr.  | AISI/ASME/INNE           |
|-----------------------------------------------------------------------------------------------|--------|--------------------------|
| X2CrNiMoN 22 5 3                                                                              | 1.4462 | 2205 / S31803, S32205    |
| X2CrNiMoSi19 5                                                                                | 1.4417 | 301LN / S31500           |
| X3CrNiMoN 27 5 2                                                                              | 1.4460 | 329 / S32900             |
| X2CrNiN 23 4                                                                                  | 1.4362 | S32304 / S32304          |
|                                                                                               |        | S32404                   |
| For dissimilar connections between non-alloy and low-alloy steels to duplex steels            |        |                          |
| 1.4462 X2CrNiMoN 22 5 3 with 1.4583 X10CrNiMoNb 18 12                                         |        |                          |
| 1.4462 X2CrNiMoN 22 5 3 with P235GH, P265GH, S255N, P295GH, S430N, 16Mo3, UNS S31803, S322005 |        |                          |
|                                                                                               |        | /J92205                  |
|                                                                                               |        | //UR45N, UR45N+/UR35N    |
|                                                                                               |        | //NK Cr22 (Nippon Kokan) |
| X10CrniMoNb10 12                                                                              | 1.4162 | S32101                   |
| X4CrniMoN27 5 2                                                                               | 1.4460 | 329 / S32900             |
| X10CrniMoNb10 12                                                                              | 1.4583 | 318/                     |
| G-X8 CrNi26 7                                                                                 | 1.4347 |                          |
| X4 CrNiMoNb25 7                                                                               | 1.4582 |                          |

### Typical chemical composition %

| C     | Si   | Mn   | Cr    | Ni   | Mo   | N    |
|-------|------|------|-------|------|------|------|
| 0,025 | 0,50 | 1,60 | 23,00 | 9,00 | 3,00 | 0,14 |

### Typical mechanical properties

|                                             |                                                                                   |
|---------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Yield strength Re [N/mm2]</b>            | >560                                                                              |
| <b>Tensile strength Rm [N/mm2]</b>          | >730                                                                              |
| <b>Elongation A5 [%]</b>                    | >26                                                                               |
| <b>Impact energy Kv [J]</b>                 | >37J (-60°C) /                                                                    |
| <b>Wire/rod type</b>                        | solid                                                                             |
| <b>Welding current</b>                      |  |
| <b>Welding positions</b>                    |  |
| <b>Additional description</b>               | Structure Austenite + Ferrite                                                     |
| <b>Shielding gases acc. to EN ISO 14175</b> | I1 - Ar / M13 - Ar + 0.5 - 3% O2 /                                                |

#### Welding parameters and packing

| Ø   | Welding current [A] | Voltage [V] | Weight of packet [kg] |
|-----|---------------------|-------------|-----------------------|
| 0,8 | 50-140              | 16-22       | 15,0                  |
| 1,0 | 80-190              | 16-24       | 15,0                  |
| 1,2 | 180-280             | 20-28       | 15,0                  |

#### METALWELD-FIPROM POLSKA spółka z o.o.

ul. Mikołajczyka 57, 41-200 Sosnowiec

+48 (32) 297 75 50 - 51

+48 (32) 297 75 88

export@metalweld.pl