



# CEWELD AA 2209Pi

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |                      |                    |                         |       |          |     |      |      |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------|--------------------|-------------------------|-------|----------|-----|------|------|
| TYPE                                        | Rutile fluxcored wire for welding duplex stainless steels with improved impact properties. (Type 2209, 1.4462)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |                      |                    |                         |       |          |     |      |      |
| APPLICATIONS                                | Duplex stainless steels in chemical industry such as offshore, tubing, vessel, boilers etc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |                      |                    |                         |       |          |     |      |      |
| PROPERTIES                                  | Smooth drop transfer and stable arc with no spatter losses. High productivity and weldability, better wetting properties compared to solid wires. Ductile weld metal quality and X-ray soundness with easy slag removal and ferrite level between 30 and 50 (FN). Excellent for use in position and down hand welding. Excellent against pitting and stress corrosion. The PRE typical value of 36.1 stimulates outstanding impact properties at sub zero temperatures.                                                                                                                                                        |                               |                      |                    |                         |       |          |     |      |      |
| CLASSIFICATION                              | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | A 5.22: E2209T1-4             |                      |                    |                         |       |          |     |      |      |
|                                             | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 17633-A: T 22 9 3 N L P M21 2 |                      |                    |                         |       |          |     |      |      |
|                                             | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.4462                        |                      |                    |                         |       |          |     |      |      |
|                                             | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6                             |                      |                    |                         |       |          |     |      |      |
|                                             | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5                             |                      |                    |                         |       |          |     |      |      |
| SUITABLE FOR                                | ISO 15608: 10.1-10.2 Austenitic > 24 % Cr ≤ 4% Ni, DUPLEX 2209, 22%Cr 9%Ni 3%Mo<br>1.4417, 1.4462, 1.4362, 1.4162, 1.4463, 1.4460, 1.4583<br>X 2 CrNiMoSi 19 5, X 2 CrNiN 23 4, X 2 CrNiMoN 22 5 3, X10CrNiMoNb18-12<br>316LN, 318LN<br>UNS S31803, S32205, S32304<br>SAF 2205 Fafer 4462, NKCr22, SM22Cr, Falc 223 UR 45N & UR 45N+, 2101, 2205, UR 35 N SAF 2304<br>mix 1.4462 X2CrNiMoN22-5-3 mit P235GH/ P265GH, S255N, P295GH, S355N, 16Mo3                                                                                                                                                                               |                               |                      |                    |                         |       |          |     |      |      |
| APPROVALS                                   | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                               |                      |                    |                         |       |          |     |      |      |
| WELDING POSITIONS                           | <div>PAPBPCPDPEPFPG</div> |                               |                      |                    |                         |       |          |     |      |      |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Si                            | Mn                   | P                  | S                       | Cr    | Ni       | Mo  | N    | PREN |
|                                             | 0.03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.55                          | 0.85                 | 0.015              | 0.003                   | 22.5  | 9.5      | 3.5 | 0.15 | 36   |
| MECHANICAL PROPERTIES                       | Heat Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | R <sub>p0,2</sub> (MPa)       | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V |       | Hardness |     |      |      |
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |                      |                    | 0°C                     | -60°C |          |     |      |      |
|                                             | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 612                           | 815                  | 29                 | 80                      | 65    |          | HRc |      |      |
| REDRYING                                    | 140°C / 24 hr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               |                      |                    |                         |       |          |     |      |      |
| GAS ACC. EN ISO 14175                       | M21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |                      |                    |                         |       |          |     |      |      |