

# CEWELD ER 90S (P24) Tig

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                      |                    |                         |     |    |          |      |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|--------------------|-------------------------|-----|----|----------|------|
| TYPE                                              | Tig welding wire for creep resistant P/T 24 type of steels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                      |                    |                         |     |    |          |      |
| TOEPASSINGEN                                      | The alloy finds use for waterwalls in ultra-super-critical (USC) boilers in the power generating industry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                      |                    |                         |     |    |          |      |
| EIGENSCHAPPEN                                     | TIG/GTAW rod for T24 creep resistant steel. The T24 alloy is a modified 2.25%Cr1%Mo alloy with additions of Nb and V to improve high temperature creep performance. Interpass temperature: max. 300°C                                                                                                                                                                                                                                                                                                                                                                                         |                         |                      |                    |                         |     |    |          |      |
| CLASSIFICATIE                                     | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A 5.28: ER 90S-G        |                      |                    |                         |     |    |          |      |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 21952-A: W ZCrMo2VNb    |                      |                    |                         |     |    |          |      |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                       |                      |                    |                         |     |    |          |      |
|                                                   | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3                       |                      |                    |                         |     |    |          |      |
| GESCHIKT VOOR                                     | alloy 24, 2.5%Cr1%Mo modified, creep resisting ferritic steels. X7CrMoVTiB 10-10 1.7378 / 7CrWVMoNb9-6 - 1.8201<br>ASTM: A/SA 335 Grade P24 - A/SA 213 Grade T24 A/SA 335 Grade P23 - A/SA 213 Grade T23                                                                                                                                                                                                                                                                                                                                                                                      |                         |                      |                    |                         |     |    |          |      |
| GOEDKEURINGEN                                     | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                      |                    |                         |     |    |          |      |
| LASPOSITIES                                       |        |                         |                      |                    |                         |     |    |          |      |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Si                      | Mn                   | P                  | S                       | Cr  | Mo | V        | Nb   |
|                                                   | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.25                    | 0.9                  | 0.01               | 0.01                    | 2.3 | 1  | 0.3      | 0.02 |
| MECHANISCHE WAARDEN                               | Heat Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | R <sub>P0,2</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V |     |    | Hardness |      |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                      |                    | RT                      |     |    |          |      |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 730°C- 760°C 1h         | 650                  | 750                | 20                      | 50  |    |          | HRc  |
| HERDROGEN                                         | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                      |                    |                         |     |    |          |      |
| GAS ACC. EN ISO 14175                             | I1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                      |                    |                         |     |    |          |      |