



# CEWELD 253 MA Tig

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |                         |                      |                    |                         |    |     |       |      |          |      |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------|----------------------|--------------------|-------------------------|----|-----|-------|------|----------|------|
| TYPE                                        | CEWELD 253 MA Tig is designed for welding austenitic chromium-nickel steels such as 253MA                                                                                                                                                                                                                                                                                                                                                                                                                              |     |                         |                      |                    |                         |    |     |       |      |          |      |
| APPLICATIONS                                | For use in high temperature furnaces, combustion chambers, burners etc Not suitable for applications exposed to wet corrosion. Prior to welding, it is recommended to carefully brush or ground black plates and previous weld beads.                                                                                                                                                                                                                                                                                  |     |                         |                      |                    |                         |    |     |       |      |          |      |
| PROPERTIES                                  | Cerium combined with silicon improves the oxidation resistance and erosion-corrosion resistance in oxidizing and neutral environments, whereas the nitrogen allows superior strength at high temperatures. Therefore, this filler wire shows excellent resistance to high temperatures (most suitable temperature range is 850 - 1100 °C), high creep strength, very good resistance to isothermal and, particularly, cyclic oxidation.                                                                                |     |                         |                      |                    |                         |    |     |       |      |          |      |
| CLASSIFICATION                              | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     | 14343-A: W 21 10 N      |                      |                    |                         |    |     |       |      |          |      |
|                                             | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     | 1.4835                  |                      |                    |                         |    |     |       |      |          |      |
| SUITABLE FOR                                | Outokumpu 253 MA (1.4835)<br>Outokumpu 153 MA (1.4818)                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |                         |                      |                    |                         |    |     |       |      |          |      |
| APPROVALS                                   | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |                         |                      |                    |                         |    |     |       |      |          |      |
| WELDING POSITIONS                           | <div>     </div> |     |                         |                      |                    |                         |    |     |       |      |          |      |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Si  | Mn                      | P                    | S                  | Cr                      | Ni | Mo  | Nb    | N    | Cu       | Ce   |
|                                             | 0.07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.5 | 0.6                     | 0.01                 | 0.001              | 21                      | 10 | 0.1 | 0.007 | 0.16 | 0.13     | 0.04 |
| 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 |      |
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |                         |                      |                    | RT                      |    |     |       |      |          |      |
|                                             | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     | 410                     | 600                  | 33                 | 110                     |    |     |       |      | HRc      |      |
| REDRYING                                    | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |                         |                      |                    |                         |    |     |       |      |          |      |
| GAS ACC. EN ISO 14175                       | I1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |                         |                      |                    |                         |    |     |       |      |          |      |