



# CEWELD AA 309 LMo

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |                      |                    |                         |    |     |       |          |    |     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------|--------------------|-------------------------|----|-----|-------|----------|----|-----|
| TYPE                                        | Rutile flux cored weldig wire for M21 and CO2. (Type 1.4459, 23 12 2)                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                           |                      |                    |                         |    |     |       |          |    |     |
| APPLICATIONS                                | Cladding applications in case a AISI 316 is required in the first layer, suitable for dissimilar welding of steel to stainless steel, heat resistant up to 1050 degrees Celsius.                                                                                                                                                                                                                                                                                                                            |                                                           |                      |                    |                         |    |     |       |          |    |     |
| PROPERTIES                                  | CEWELD AA 309 LMo is a rutile flux cored wire which operates with very stable, spatter free arc producing bright, smooth weld bead surfaces and self releasing slag. This wire deposits low carbon weld metal of about 23%Cr-13%Ni-2.3%Mo                                                                                                                                                                                                                                                                   |                                                           |                      |                    |                         |    |     |       |          |    |     |
| CLASSIFICATION                              | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A 5.22: E309LMoT0-1, A 5.22: E309LMoT0-4                  |                      |                    |                         |    |     |       |          |    |     |
|                                             | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 17633-A: T 23 12 2 L R M21 3, 17633-A: T 23 12 2 L R C1 3 |                      |                    |                         |    |     |       |          |    |     |
|                                             | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.4459                                                    |                      |                    |                         |    |     |       |          |    |     |
|                                             | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6                                                         |                      |                    |                         |    |     |       |          |    |     |
|                                             | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                         |                      |                    |                         |    |     |       |          |    |     |
| SUITABLE FOR                                | <b>ISO 15608: 8.1 Austenitic ≤ 19 % Cr , TÜV 1000: Gr. 21-30,</b><br>1.4583, 1.4435, 1.4436, 1.4404, 1.4406, 1.4408, 1.4401, 1.4571, 1.4580, 1.4406, 1.4521, 1.4301, 1.4306,<br>X102CrNiMoNb 18 12, X2CrNiMo 18 14 3 (TP), X4CrNiMo 17 13 3, X2CrNiMo 17 12 2 (TP), X 5CrNiMo 19 11 2, X4CrNiMo 17 12 2 (TP), X6CrNiMo 17 12 2, X6CrNiMoNb 17 12 3, X2CrNiMoN 17 12 3 (TP), X2CrMoTi18-2<br>316Cb, 316L, 316L, 316LN, 316H, 316, 316Ti, 316Cb, 316LN, 444<br>S31640, S31603, S31653, S31600, S31630, S44400 |                                                           |                      |                    |                         |    |     |       |          |    |     |
| APPROVALS                                   | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                      |                    |                         |    |     |       |          |    |     |
| WELDING POSITIONS                           | <div>   </div>                                                                                                                                                  |                                                           |                      |                    |                         |    |     |       |          |    |     |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Si                                                        | Mn                   | P                  | Cr                      | Ni | Mo  | S     | FN       | FS | FNW |
|                                             | 0.02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.7                                                       | 1.4                  | 0.018              | 23.5                    | 13 | 2.5 | 0.007 | 18       | 17 | 27  |
| 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 |    |     |
|                                             | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 540                                                       | 700                  | 30                 | -20°C                   |    |     |       | 45       |    |     |
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |                      |                    |                         |    |     |       | HRc      |    |     |
| REDRYING                                    | 140°C / 24 hr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                      |                    |                         |    |     |       |          |    |     |
| GAS ACC. EN ISO 14175                       | M21, C1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |                      |                    |                         |    |     |       |          |    |     |