



# CEWELD SA 318

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                      |                    |                         |        |          |      |     |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|--------------------|-------------------------|--------|----------|------|-----|
| TYPE                                           | Solid stainless steel welding wire for submerged arc welding stabilized stainless steels with high Mo content                                                                                                                                                                                                                                                                                                                                                |                         |                      |                    |                         |        |          |      |     |
| ANWENDUNGEN                                    | The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding. Suitable for welding stabilized corrosion-resistant Cr-Ni-Mo steels for working temperatures up to 400°C.                                                                                                                                                                                                                                               |                         |                      |                    |                         |        |          |      |     |
| EIGENSCHAFTEN                                  | CEWELD® SA 318 is engineered to a very precise analysis to create a weld deposit of high purity, superior hot cracking and corrosion resistance. CVN toughness down to –120 °C, resistant to intergranular corrosion up to 400 °C. Flux CEWELD® FL 838 or fused flux CEWELD® FL 880                                                                                                                                                                          |                         |                      |                    |                         |        |          |      |     |
| KLASSIFIKATION                                 | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14343-A: S 19 12 3 Nb   |                      |                    |                         |        |          |      |     |
|                                                | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1.4576                  |                      |                    |                         |        |          |      |     |
|                                                | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6                       |                      |                    |                         |        |          |      |     |
|                                                | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 5                       |                      |                    |                         |        |          |      |     |
| GEEIGNET FÜR                                   | 1.4301, 1.4306, 1.4401, 1.4404, 1.4408, 1.4420, 1.4435, 1.4436, 1.4541, 1.4550, 1.4571, 1.4573, 1.4580, 1.4581, 1.4583<br>X 6 CrNiMoTi 17 12 2, X10 CrNiMoTi 18 12, X 6 CrNiMoNb 17 12 2, G-X 5 CrNiMoNb 18 10, X 10 CrNiMoNb 18 12, X 5 CrNiMo 18 11, X 2 CrNiMo 17 13 2, G-X 2 CrNiMo 18 10, X 2 CrNiMo 18 14 3, X 5 CrNiMo 17 12 2, G-X 6 CrNiMo 18 10, X 5 CrNiMo 17 13 3<br>UNS S31600, S31603, S31635, S31640, S31653,<br>AISI 316, 316L, 316Ti, 316Cb |                         |                      |                    |                         |        |          |      |     |
| ZULASSUNGEN                                    | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                      |                    |                         |        |          |      |     |
| SCHWEISSPOSITIONEN                             | <div> PA</div> <div> PB</div> <div> PC</div>                                                                                                                                                        |                         |                      |                    |                         |        |          |      |     |
| TYPISCHE CHEMISCHE ANALYSE DES FÜLLMETALLS (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Si                      | Mn                   | P                  | S                       | Cr     | Ni       | Mo   | Nb  |
|                                                | 0.035                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.5                     | 1.6                  | 0.02               | 0.02                    | 19     | 12.5     | 2.75 | 0.6 |
| MECHANISCHE GÜTEWERTE                          | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 390                     | 590                  | 30                 | RT                      | -110°C | HRc      |      |     |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                      |                    | 110                     | 47     |          |      |     |
| RÜCKTROCKNUNG                                  | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                      |                    |                         |        |          |      |     |
| GAS ACC. EN ISO 14175                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                      |                    |                         |        |          |      |     |