



# CEWELD E NiCr 690

|                                             |                                                                                                                                                                                                                                                                              |                            |                      |                    |                         |     |     |          |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|--------------------|-------------------------|-----|-----|----------|
| TYPE                                        | Nickel based high basic SMAW welding electrode. ( Type Alloy 690)                                                                                                                                                                                                            |                            |                      |                    |                         |     |     |          |
| TOEPASSINGEN                                | CEWELD E NiCro 690 electrodes are used for welding of nickel-chromium-iron Inconel alloys 690 to themselves and 600 steels. Also for heterogeneous stainless and low-alloy steels. Soft arc, easily detachable slag, regular beads. Nuclear power plants, chemical industry. |                            |                      |                    |                         |     |     |          |
| EIGENSCHAPPEN                               | CEWELD E NiCro 690 has a higher Cr content which improves resistance to stress-corrosion cracking in the nuclear, pure water enviroment.                                                                                                                                     |                            |                      |                    |                         |     |     |          |
| CLASSIFICATIE                               | AWS                                                                                                                                                                                                                                                                          | A 5.11: ENiCrFe-7          |                      |                    |                         |     |     |          |
|                                             | EN ISO                                                                                                                                                                                                                                                                       | 14172: Ni 6152 NiCr30Fe9Nb |                      |                    |                         |     |     |          |
|                                             | F-nr                                                                                                                                                                                                                                                                         | 43                         |                      |                    |                         |     |     |          |
|                                             | FM                                                                                                                                                                                                                                                                           | 6                          |                      |                    |                         |     |     |          |
| GESCHIKT VOOR                               | <b>Alloy 690, UNS W86152, NiCrFe-7</b><br>Inconel 690, VDM Alloy 690, Nicrofer 6030 N, FM 52, 2.4642, NiCr29Fe, Inconel 600, NiCr30Fe9Nb                                                                                                                                     |                            |                      |                    |                         |     |     |          |
| GOEDKEURINGEN                               |                                                                                                                                                                                                                                                                              |                            |                      |                    |                         |     |     |          |
| LASPOSITIES                                 |                           |                            |                      |                    |                         |     |     |          |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | C                                                                                                                                                                                                                                                                            | Si                         | Mn                   | Cr                 | Ni                      | Mo  | Nb  | Fe       |
|                                             | 0.04                                                                                                                                                                                                                                                                         | 0.5                        | 4                    | 29                 | Rem.                    | 0.3 | 1.5 | 7        |
| 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                      |     |     |          |
|                                             | As Welded                                                                                                                                                                                                                                                                    | 430                        | 650                  | 40                 | 110                     |     |     | HRc      |
| HERDROGEN                                   | Not required                                                                                                                                                                                                                                                                 |                            |                      |                    |                         |     |     |          |
| GAS ACC. EN ISO 14175                       |                                                                                                                                                                                                                                                                              |                            |                      |                    |                         |     |     |          |