



# CEWELD AlMg 4.5Mn Tig

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                      |        |                         |      |          |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------|--------|-------------------------|------|----------|
| TYPE                                              | Tig aluminium welding wire with high corrosion resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                    |                      |        |                         |      |          |
| TOEPASSINGEN                                      | Filler metal for Magnesium and Manganese alloyed Aluminium with a maximum Magnesium content of 5%. This alloy shows very good mechanical properties that make it ideal for applications in shipyards, in car and railway industry and constructions of reservoirs and tanks.                                                                                                                                                                                                                                                                                                                         |                                    |                      |        |                         |      |          |
| EIGENSCHAPPEN                                     | Excellent weldability and good mechanical strength combined with good corrosion resistance against seawater are typical for this alloy. The weld deposit is free from porosity due to the special shaving process and cleaning method during production. AlMg4,5Mn is one of the highest grades within the range of aluminum alloys and covers a huge range of alloys. Thicker sections should be preheated (150°C) prior to welding.                                                                                                                                                                |                                    |                      |        |                         |      |          |
| CLASSIFICATIE                                     | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A 5.10: ER5183                     |                      |        |                         |      |          |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 18273: S Al 5183 (AlMg4,5Mn0,7(A)) |                      |        |                         |      |          |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 22                                 |                      |        |                         |      |          |
| GESCHIKT VOOR                                     | Aluminium alloys: AlMg4,5Mn, AlMg5, AlMg2Mn0,8, AlZnMg1, AlZnMgCu0,5, AlMgSi0,5, AlMgSi1, G-AlMg10, G-AlMg5, G-AlMg3Si, G-AlMg5Si, 3.3545, 3.3547, 3.3535, 3.3555, 3.3206, 3.3210, 3.2315, 3.3211, 3.4335, EN AW 5086, EN AW 5083, EN AW 5019, EN AW 5019, EN AW 6060, EN AW 6005A, EN AW 6082, EN AW 6061, EN AW 7020, EN AC 51300, EN AC 51400,                                                                                                                                                                                                                                                    |                                    |                      |        |                         |      |          |
| GOEDKEURINGEN                                     | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                      |        |                         |      |          |
| LASPOSITIES                                       |        |                                    |                      |        |                         |      |          |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | Si                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mn                                 | Cr                   | Ti     | Fe                      | Al   | Mg       |
|                                                   | 0.07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.7                                | 0.1                  | 0.09   | 0.15                    | Rem. | 4.5      |
| MECHANISCHE WAARDEN                               | Heat Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | R <sub>P0,2</sub> (MPa)            | R <sub>m</sub> (MPa) | A5 (%) | Impact Energy (J) ISO-V |      | Hardness |
|                                                   | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 140                                | 300                  | 25     | RT                      |      |          |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                      |        | 30                      |      | HRc      |
| HERDROGEN                                         | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    |                      |        |                         |      |          |
| GAS ACC. EN ISO 14175                             | I1, I3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |        |                         |      |          |