



# CEWELD NiCro 52M Tig

**TYPE** Solid nickel base welding wire for Tungsten Inert Gas (TIG) welding

**APPLICATIONS** CEWELD® Nicro 52M Tig filler metal is used for welding nickel-chromium-iron (Inconel 690) alloys to themselves, and for dissimilar welding between nickel-chromium-iron alloys and steels or stainless steels. The applications include surfacing as well as clad-side welding. This product contains Boron and Zirconium to minimize the tendency for ductility-dip cracking, while it is especially resistant to oxide "floaters" and inclusions.

**PROPERTIES** Excellent resistance against oxidizing media combined with high mechanical strength at room temperature but also at extreme high temperatures combined with high ductility due to the high chromium content. Alloy 690 was developed to offer greater resistance to stress corrosion in the nuclear industry, pure water environment. Similar to FM 52 but the 52M is for nuclear application where a specific (very strict) chemical analysis is requested.

**CLASSIFICATION**

|        |                             |
|--------|-----------------------------|
| AWS    | A 5.14: ERNiCrFe-7A         |
| EN ISO | 18274: S Ni 6054(NiCr29Fe9) |
| W.Nr.  | 2.4642                      |
| F-nr   | 43                          |
| FM     | 6                           |

**SUITABLE FOR** Inconel 690, VDM Alloy 690, Nicrofer 6030 N, FM 52, 2.4642, NiCr29Fe

**APPROVALS**

**WELDING POSITIONS**



**TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)**

| C    | Si  | Mn  | Cr | Ni | Mo  | Nb  | Ti  | Fe | Al  | Nb+Ta |
|------|-----|-----|----|----|-----|-----|-----|----|-----|-------|
| 0.02 | 0.3 | 0.7 | 30 | 63 | 0.3 | 0.8 | 0.3 | 10 | 0.8 | 0.8   |

**MECHANICAL PROPERTIES**

| Heat Treatment | R <sub>P0,2</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Hardness |
|----------------|-------------------------|----------------------|--------------------|----------|
| As Welded      | 770                     | 870                  | 16                 | HRc      |
| 580°C±15°C 1h  | 260                     | 580                  | 30                 | 200 HB   |

**REDRYING** Not required

**GAS ACC. EN ISO 14175** I1



# CEWELD NiCro 52M Tig

NICRO 52M TIG 2,4 X 914MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| Tube      | 4,54    | 8720663418272 |

NICRO 52M TIG 3,2 X 914MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| Tube      | 4,54    | 8720663418258 |