# 20.70 Nb

#### **TOP FEATURES**

- TIG rod for the welding of nickel base alloys and dissimilar joints between nickel alloys, ferritic and austenitic stainless steels
- Hot cracking resistance
- Tolerance to high dilution

#### CLASSIFICATION

AWS A5.14M ERNiCr-3 EN ISO 18274-A S Ni6082

#### **SHIELDING GASES (ACC. EN ISO 14175)**

I1 Inert gas Ar (100%)

#### **APPROVALS**

#### TÜV

+

## **CHEMICAL COMPOSITION (WEIGHT %), TYPICAL**

|         | С    | Mn  | Si   | S     | P     | Cr   | Ni   | Nb  | Cu   | Ti  | Fe  |
|---------|------|-----|------|-------|-------|------|------|-----|------|-----|-----|
| Min.    |      | 2.5 |      |       |       | 18.0 | 67.0 | 2.0 |      |     |     |
| Max.    | 0.05 | 3.5 | 0.50 | 0.015 | 0.020 | 22.0 | bal. | 3.0 | 0.50 | 0.7 | 3.0 |
| Typical | 0.02 | 3   | 0.1  | 0.005 | 0.01  | 20   | 73   | 2.5 | 0.01 | 0.4 | 1   |

#### **MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL**

| As welded           | RT     |       |
|---------------------|--------|-------|
| Tensile strength    | (MPa)  | 650   |
| 0.2% Proof strength | (MPa)  | 390   |
| Elongation (%)      | 4d     | 50    |
|                     | 5d     | 45    |
| Reduction of area   | (%)    | 60    |
| Impact ISO-V (J)    | -196°C | > 100 |

# **PACKAGING AND AVAILABLE SIZES**

| Diameter x Length<br>(mm) | Packaging | Weight<br>(kg) | Item number |  |
|---------------------------|-----------|----------------|-------------|--|
| 1.6                       | PE Tube   | 5.0            | T2070NB-16  |  |
| 2.0                       | PE Tube   | 5.0            | T2070NB-20  |  |
| 2.4                       | PE Tube   | 5.0            | T2070NB-24  |  |

## TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:



Subject to Change – The information is accurate to the best of our knowledge at the time of printing. Please refer to <a href="www.lincolnelectric.eu">www.lincolnelectric.eu</a> for any updated information.

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