

# FILCORD 48

## TOP FEATURES

- The addition of Ni and Cu to the weld metal provides increased resistance to atmospheric corrosion compared to conventional C-Mn steels.
- Copper percentage help preventing further oxidation of the weld bead.
- Excellent mechanical characteristics and resistance to corrosion.

## TYPICAL APPLICATIONS

- Infrastructures
- Transmission towers, barriers, ducting, chimneys
- Exhaust Systems

## CLASSIFICATION

|                |              |
|----------------|--------------|
| AWS A5.28      | ER80S-G      |
| EN ISO 14341-A | G 42 3 C1 Z  |
|                | G 42 4 M21 Z |

## SHIELDING GASES (ACC. EN ISO 14175)

|     |                                      |
|-----|--------------------------------------|
| C1  | Active gas 100% CO <sub>2</sub>      |
| M21 | Mixed gas Ar+ 15-25% CO <sub>2</sub> |

## APPROVALS

|     |    |
|-----|----|
| TÜV | CE |
| +   | +  |

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

| C    | Mn  | Si  | P      | S      | Cr  | Ni  | Cu  |
|------|-----|-----|--------|--------|-----|-----|-----|
| 0.09 | 1.4 | 0.8 | ≤0.025 | ≤0.025 | 0.3 | 0.8 | 0.4 |

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

|                | Shielding gas | Condition* | Yield strength (MPa) | Tensile strength (MPa) | Elongation (%) | Impact ISO-V (J) |       |       |
|----------------|---------------|------------|----------------------|------------------------|----------------|------------------|-------|-------|
|                |               |            |                      |                        |                | +20°C            | -30°C | -40°C |
| Typical values | M21           | AW         | ≥420                 | 500-640                | ≥22            | ≥120             | ≥90   | >80   |
|                | C1            | AW         | >420                 | 500-640                | ≥22            | ≥100             | ≥47   |       |

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

| Wire diameter (mm) | Packaging    | Weight (kg) | Item number  |
|--------------------|--------------|-------------|--------------|
| 1.2                | SPOOL (B300) | 16.0        | S12K016PCE22 |

## 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 [www.lincolnelectric.eu](http://www.lincolnelectric.eu) for any updated information.