

# Outershield® 71M-H

## TOP FEATURES

- Specially developed for welding with 100% CO<sub>2</sub> and optimised for Ar/CO<sub>2</sub> mix gas; smooth arc with low spatter
- Good mechanical properties (CVN > 47) at -30°C for CO<sub>2</sub>
- Perfect root pass welding on ceramic backing
- High current capacity, especially in positional welding
- Stable mechanical properties over the wider range of heat input

## TYPICAL APPLICATIONS

- Shipbuilding
- Steel construction
- HYPERFILL

## CLASSIFICATION

AWS A5.20 E71T-1/9C-H4 / E71T-1/9M-H4  
EN ISO 17632-A T 46 3 P C 1 H5

## CURRENT TYPE

DC+

## WELDING POSITIONS

All except vertical down

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ (>15-25%) CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>  
Gas flow 15-25 l/min

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

| Shielding gas | C    | Mn   | Si  | P     | S     | HDM        |
|---------------|------|------|-----|-------|-------|------------|
| C1            | 0.05 | 1,3  | 0.4 | 0.015 | 0.009 | 3 ml/100 g |
| M21           | 0.05 | 1,47 | 0.5 | 0.015 | 0.009 | 4 ml/100 g |

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

|                     | Shielding gas | Condition* | Yield strength (MPa) | Tensile strength (MPa) | Elongation (%) | Impact ISO-V (J) |         |
|---------------------|---------------|------------|----------------------|------------------------|----------------|------------------|---------|
|                     |               |            |                      |                        |                | -20°C            | -30°C   |
| Required: AWS A5.20 |               |            | min. 400             | min. 480               | min. 22        |                  |         |
| EN ISO 17632-A      |               |            | min. 460             | 530-680                | min. 20        |                  | min. 47 |
| Typical values      | M21           | AW         | 595                  | 650                    | 26             | 80               |         |
|                     | C1            | AW         | 530                  | 590                    | 25             |                  | 70      |

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

| Wire diameter (mm) | Packaging    | Weight (kg) | Item number       |
|--------------------|--------------|-------------|-------------------|
| 1.0                | SPOOL (S200) | 5.0         | 900770N           |
|                    | SPOOL (S200) | 5.0         | 900707            |
| 1.2                | SPOOL (B300) | 16.0        | 900700N, 900728N  |
|                    | SPOOL (S300) | 16.0        | 900728NE          |
|                    | DRUM         | 200.0       | 900798            |
| 1.6                | SPOOL (S300) | 16.0        | 900742N, 900742NE |

## 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.