

# MG 1

## Gas Metal Arc (MAG) Welding Wire - Non Alloyed Steels

| Standards           |                |
|---------------------|----------------|
| AWS/ASME SFA - 5.18 | ER70S-3        |
| EN ISO 14341 - A    | G 38 3 C1 2Si  |
| EN ISO 14341 - A    | G 38 3 M21 2Si |
| TS EN ISO 14341 - A | G 38 3 C1 2Si  |
| TS EN ISO 14341 - A | G 38 3 M21 2Si |
| DIN M. No.          | 1.5112         |

| Materials           |                   |
|---------------------|-------------------|
| Width               | DIN               |
| S185 - S275T1       | St 33 - St 44.0   |
| P235G1TH - P25G1TH5 | St 35.8 - St 45.8 |
| P235GH, P265GH      | H I, H II         |
| -                   | A, B, D, E        |

**Properties and Applications**

Unalloyed wire electrode for GMA (MIG/MAG) welding of unalloyed steels by using CO<sub>2</sub> or mixed gases, depending on thickness of the base metal. Characterized by a reduced slag formation and smooth welding deposit. Particularly suitable for welding of galvanized and pre-paint steels, welding unalloyed steels in pipe-lines, boilers and tank construction. Suitable also welding thin metal plates and repair welds. A thin and homogeneous copper coating increases electrical conductivity and protects the wire from using.

| Typical Chemical Features of the Welding Wire |      |      |      |
|---|------|------|------|
| Type of Analysis                              | C    | Si   | Mn   |
| Welding Wire                                  | 0.07 | 0.70 | 1.25 |

| Typical Mechanical Values of Weld Metal |                |                                     |                                       |                   |                               |
|---|----------------|-------------------------------------|---------------------------------------|-------------------|-------------------------------|
| Test Condition                          | Protection Gas | Yield Strength (N/mm <sup>2</sup> ) | Tensile Strength (N/mm <sup>2</sup> ) | Elongation A5 (%) | Charpy V-Notch Properties (J) |
| As welded                               | C1             | 400                                 | 470                                   | 30                | -30°C → 100                   |
| As welded                               | M21            | 420                                 | 520                                   | 30                | -30°C → 80                    |

\* Chemical composition and mechanical properties are valid when using shielding gas EN ISO 14175 - C1 (%100 CO<sub>2</sub>) ve M21 (Ar + %20 CO<sub>2</sub>).

**Application Information**

**Welding Positions**

PA PB PC PD PE PF PG

**Polarity:**

**Protection Gas:**  
M20 M24 M26 M21 C1

**Welding Parameters & Efficiency**

| Diameter (mm) |
|---------------|
| 0.80          |
| 1.00          |
| 1.20          |
| 1.60          |

| Packaging Information |               |                  |                       |                     |                             |                            |
|-----------------------|---------------|------------------|-----------------------|---------------------|-----------------------------|----------------------------|
| Product Code          | Diameter (mm) | Quantity per Box | Box Gross Weight (kg) | Boxes per Outer Box | Outer Box Gross Weight (kg) | Packaging Type             |
| 21001B0GM2            | 0.80          | 60 kg            | 64.00                 | 1                   | 64.00                       | Fiber Drum                 |
| 21001B1GM2            | 0.80          | 250 kg           | 257.50                | 1                   | 257.50                      | Fiber Drum                 |
| 21001BAKM2            | 0.80          | 1 kg             | 1.10                  | 14                  | 15.70                       | Plastic Spool (D100)       |
| 21001BJAM2            | 0.80          | 15 kg            | 15.70                 | 1                   | 15.70                       | Wire Basket Spool (K300MS) |
| 21001D1GM2            | 1.00          | 250 kg           | 257.50                | 1                   | 257.50                      | Fiber Drum                 |
| 21001DBAM2            | 1.00          | 5 kg             | 5.30                  | 1                   | 5.30                        | Plastic Spool (D200)       |
| 21001DHAM2            | 1.00          | 15 kg            | 15.80                 | 1                   | 15.20                       | Plastic Spool (D300)       |

|            |      |        |        |   |        |                            |
|------------|------|--------|--------|---|--------|----------------------------|
| 21001DJAM2 | 1.00 | 15 kg  | 15.70  | 1 | 15.70  | Wire Basket Spool (K300MS) |
| 21001E1GM2 | 1.20 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum                 |
| 21001EJAM2 | 1.20 | 15 kg  | 15.70  | 1 | 15.70  | Wire Basket Spool (K300MS) |
| 21001EJHM2 | 1.20 | 15 kg  | 15.70  | 1 | 15.70  | Wire Basket Spool (K300MS) |
| 21001GJGM2 | 1.60 | 15 kg  | 15.70  | 1 | 15.70  | Wire Basket Spool (K300MS) |

#### Storage & Re-Drying Information

Shouldn't be exposed to high statical load and impact.  
It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.