

MG 2

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

Standards

| | |
|---------------------|-----------------|
| AWS/ASME SFA - 5.18 | ER70S-6 |
| EN ISO 14341 - A | G 42 4 M21 3Si1 |
| EN ISO 14341 - A | G 42 3 C1 3Si1 |
| TS EN ISO 14341 - A | G 42 4 M21 3Si1 |
| TS EN ISO 14341 - A | G 42 3 C1 3Si1 |
| DIN M. No. | 1.5125 |

Approvals & Certificates

| | | |
|------|--------|------|
| CWB | DNV-GL | DB |
| TUV | CE | RINA |
| HAKC | TSE | ABS |
| TL | | |

Materials

| Width | DIN |
|---------------------|-----------------------|
| S185 - P355T1 | St 33 - St 52.0 |
| S235JR - S355J0 | St 37.2 - St 52.3 |
| S235JR - S355J2 | |
| P235G1TH - P265G1TH | St 35.8 - St 45.8 |
| P235GH, P265GH | H I, H II |
| P235TR2 - P355T2 | St 37.4 - St 52.4 |
| E295 | St 50.2 |
| L210 - L360NB | StE 210.7 - StE 360.7 |
| S255N -S380N | StE 255 - StE 380 |
| GE 200 - GE 240 | GS-38, GS-45 |
| P295GH, P355GH | 17Mn4, 19Mn5 |
| - | A, B, D, E |

Properties and Applications

Unalloyed wire electrode for GMA (MIG/MAG) welding of general structural steels, pipe steels, and cast steels using CO₂ or mixed shielding gases, depending on thickness of the base metal. Generally used in steel construction, shipbuilding, machine, tank, boiler production, automotive industry. Preheating is required, depending on the plate thickness and carbon equivalent of the base metal. A thin and homogeneous copper coating increases electrical conductivity and protects the wire from rusting.



Typical Chemical Features of the Welding Wire

| Type of Analysis | C | Si | Mn |
|------------------|------|------|------|
| Welding Wire | 0.07 | 0.90 | 1.45 |

Typical Mechanical Values of Weld Metal

| Test Condition | Protection Gas | Yield Strength (N/mm ²) | Tensile Strength (N/mm ²) | Elongation A5 (%) | Charpy V-Notch Properties (J) | |
|----------------|----------------|-------------------------------------|---------------------------------------|-------------------|-------------------------------|------------|
| As welded | C1 | 430 | 540 | 29 | -20°C → 90 | -30°C → 70 |
| As welded | M21 | 460 | 560 | 27 | -30°C → 95 | -40°C → 75 |

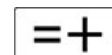
* Chemical composition and mechanical properties are valid when using shielding gas EN ISO 14175 - C1 (%100 CO₂) ve M21 (Ar + %20 CO₂).

Application Information

Welding Positions



Polarity:



Protection Gas:

M20 M24 M26 M21 C1

Welding Parameters & Efficiency

| Diameter (mm) | Current (A) |
|---------------|-------------|
| 0.60 | 30-120 |
| 0.80 | 50-180 |

| | |
|------|---------|
| 0.90 | |
| 1.00 | 80-230 |
| 1.20 | 120-280 |
| 1.40 | |
| 1.60 | 200-400 |
| 2.00 | |
| 2.40 | |
| 3.20 | |

| Packaging Information | | | | | | |
|-----------------------|---------------|------------------|-----------------------|---------------------|-----------------------------|----------------------------|
| Product Code | Diameter (mm) | Quantity per Box | Box Gross Weight (kg) | Boxes per Outer Box | Outer Box Gross Weight (kg) | Packaging Type |
| 21002AAKM2 | 0.60 | 1 kg | 1.10 | 14 | 15.70 | Plastic Spool (D100) |
| 21002ABAM2 | 0.60 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002ABBM2 | 0.60 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002AHAM2 | 0.60 | 12 kg | 12.60 | 1 | 12.60 | Plastic Spool (D300) |
| 21002AJAM2 | 0.60 | 12 kg | 12.70 | 1 | 12.70 | Wire Basket Spool (K300MS) |
| 21002AKAM2 | 0.60 | 12 kg | 12.60 | 1 | 12.60 | Wire Basket Spool (K300MS) |
| 21002B0GM2 | 0.80 | 60 kg | 64.00 | 1 | 64.00 | Fiber Drum |
| 21002B1GM2 | 0.80 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002B1HM2 | 0.80 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002B5GM2 | 0.80 | 60 kg | 64.00 | 1 | 64.00 | OCTABIN |
| 21002BAKM2 | 0.80 | 1 kg | 1.10 | 14 | 15.70 | Plastic Spool (D100) |
| 21002BBAM2 | 0.80 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002BBBM2 | 0.80 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002BHAM2 | 0.80 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002BHBM2 | 0.80 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002BJAM2 | 0.80 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002BJHM2 | 0.80 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002BKAM2 | 0.80 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300MS) |
| 21002BNAM2 | 0.80 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |
| 21002BNHM2 | 0.80 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |
| 21002BRAM2 | 0.80 | 18 kg | 18.70 | 1 | 18.70 | Wire Basket Spool (K300MS) |
| 21002C1GM2 | 0.90 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002C1HM2 | 0.90 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002CALM2 | 0.90 | 1 kg | 1.10 | 14 | 15.70 | Plastic Spool (D100) |
| 21002CBBM2 | 0.90 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002CHAM2 | 0.90 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002CHHM2 | 0.90 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002CJAM2 | 0.90 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002CKAM2 | 0.90 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300MS) |
| 21002CSAM2 | 0.90 | 20 kg | 20.90 | 1 | 20.90 | Plastic Spool (D300) |
| 21002D0GM2 | 1.00 | 60 kg | 64.00 | 1 | 64.00 | Fiber Drum |
| 21002D1GM2 | 1.00 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002D1HM2 | 1.00 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002D2GM2 | 1.00 | 400 kg | 416.00 | 1 | 416.00 | Fiber Drum |
| 21002DAKM2 | 1.00 | 1 kg | 1.10 | 14 | 15.70 | Plastic Spool (D100) |
| 21002DBAM2 | 1.00 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002DBBM2 | 1.00 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002DHAM2 | 1.00 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002DHHM2 | 1.00 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002DJAM2 | 1.00 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002DJHM2 | 1.00 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002DKAM2 | 1.00 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300MS) |
| 21002DNAM2 | 1.00 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |
| 21002DNHM2 | 1.00 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |

| | | | | | | |
|------------|------|--------|--------|----|--------|----------------------------|
| 21002DRAM2 | 1.00 | 18 kg | 18.70 | 1 | 18.70 | Wire Basket Spool (K300MS) |
| 21002E0GM2 | 1.20 | 60 kg | 64.00 | 1 | 64.00 | Fiber Drum |
| 21002E1GM2 | 1.20 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002E1HM2 | 1.20 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002E2GM2 | 1.20 | 400 kg | 416.00 | 1 | 416.00 | Fiber Drum |
| 21002EAKM2 | 1.20 | 1 kg | 1.10 | 14 | 15.70 | Plastic Spool (D100) |
| 21002EBAM2 | 1.20 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002EBBM2 | 1.20 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002EHAM2 | 1.20 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002EHHM2 | 1.20 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002EJAM2 | 1.20 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002EJAMU | 1.20 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002EJHM2 | 1.20 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002EKAM2 | 1.20 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300MS) |
| 21002ENAM2 | 1.20 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |
| 21002ENHM2 | 1.20 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |
| 21002ERAM2 | 1.20 | 18 kg | 18.70 | 1 | 18.70 | Wire Basket Spool (K300MS) |
| 21002ESAM2 | 1.20 | 20 kg | 20.90 | 1 | 20.90 | Plastic Spool (D300) |
| 21002F1GM2 | 1.40 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002F1HM2 | 1.40 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002FHAM2 | 1.40 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002FJAM2 | 1.40 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002G0GM2 | 1.60 | 60 kg | 64.00 | 1 | 64.00 | Fiber Drum |
| 21002G1GM2 | 1.60 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002G1HM2 | 1.60 | 250 kg | 257.50 | 1 | 257.50 | Fiber Drum |
| 21002G2GM2 | 1.60 | 400 kg | 416.00 | 1 | 416.00 | Fiber Drum |
| 21002GBAM2 | 1.60 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002GBBM2 | 1.60 | 5 kg | 5.30 | 1 | 5.30 | Plastic Spool (D200) |
| 21002GHAM2 | 1.60 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002GHHM2 | 1.60 | 15 kg | 15.80 | 1 | 15.80 | Plastic Spool (D300) |
| 21002GJAM2 | 1.60 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002GJHM2 | 1.60 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002GKAM2 | 1.60 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300MS) |
| 21002GNAM2 | 1.60 | 15 kg | 15.20 | 1 | 15.20 | Wire Basket Spool (K300) |
| 21002HJAM2 | 2.00 | 15 kg | 15.70 | 1 | 15.70 | Wire Basket Spool (K300MS) |
| 21002I2GM2 | 2.40 | 400 kg | 416.00 | 1 | 416.00 | Fiber Drum |
| 21002L2GM2 | 3.20 | 400 kg | 416.00 | 1 | 416.00 | Fiber Drum |

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.