

## AUTOCRAFT Mn-Mo

### PRODUCT DATA SHEET



**COPPER COATED,  
LOW ALLOY STEEL  
WIRES**



### GAS METAL ARC WELDING (MIG) WIRES

#### AUTOCRAFT Mn-Mo

- A Manganese Molybdenum Steel Wire for the GMAW Welding of Higher Strength steels.
- 550 MPa Tensile Class Weld Deposits.
- Suitable for Use with Short-arc, Spray & Pulsed Arc Transfer Modes.
- For Use with Welding Grade CO<sub>2</sub> or Argon Based Shielding Gases.

#### CLASSIFICATIONS:

ISO AS/NZS 14341:

B G 55A 3 C1/M21/M24 S4M31  
B G 57A 3 C1/M21/M24 S4M31

AWS/ASME-SFA A5.28:

ER80S-D2  
ER90S-D2

#### TYPICAL DIFFUSIBLE HYDROGEN LEVELS TO AS3752:

##### USING ARGON + 18-25% CO<sub>2</sub>:

|                   |                                     |
|-------------------|-------------------------------------|
| Yield Stress      | 580 MPa                             |
| Tensile Strength  | 680 MPa                             |
| Elongation        | 24%                                 |
| CVN Impact Values | 80 J av @ +20°C<br>>47 J av @ -30°C |

#### TYPICAL WIRE ANALYSIS:

|     |        |
|-----|--------|
| C:  | 0.08%  |
| Mn: | 1.73%  |
| Si: | 0.65%  |
| Mo: | 0.45%  |
| S:  | 0.011% |
| P:  | 0.017% |

DESCRIPTION AND APPLICATIONS:

Autocraft Mn-Mo is a copper coated, low alloy steel wire suitable for the all positional Gas Metal Arc Welding (GMAW) of medium to high strength steels.

Autocraft Mn-Mo produces a low alloy (nominally 1.7% Mn / 0.4% Mo) steel weld deposit of the 550 MPa tensile class. It gives excellent resistance to porosity when welding dirty or rusty plate due to its higher deoxidant levels.

Autocraft Mn-Mo is suitable for the all positional fillet and butt welding of a wide range of higher strength steels, particularly those used in the fabrication of pressure vessels, boilers and pipelines where service temperatures up to ~ 500°C are experienced. Other applications include the lower strength fillet and butt welding of components subjected to dynamic loading.

STORAGE RECOMMENDATIONS:

When held under the recommended storage conditions unopened packs of Autocraft Mn-Mo wires are expected to remain in 'factory fresh' condition for at least 12 months.

For storage over 12 months or under adverse (damp or high humidity) climatic conditions the use of heated weather proof store rooms/cupboards /containers maintained at 10-15°C above ambient temperature (with a maximum of 40°C) and at a maximum humidity of 60% R.H. is recommended. Product should be stacked on racks or pallets clear of the floor and walls.

PACKAGING AND OPERATING DATA:

| WIRE DIAMETER (MM) | VOLTAGE RANGE (VOLTS) | WIRE FEED SPEED (METERS/MIN) | CURRENT RANGE (AMPS) | PACK TYPE | PACK WEIGHT | PART NO. |
|--------------------|-----------------------|------------------------------|----------------------|-----------|-------------|----------|
| 0.9                | 16-28                 | 3.5-15                       | 70-230               | Spool     | 15kg        | 720049   |
| 1.2                | 18-32                 | 3.5-15                       | 120-350              | Spool     | 15kg        | 720052   |

\* Spool (ø300mm).

RECOMMENDED\* SHIELDING GAS:

|   |  |
|---|--|
| AS 4882:  | SG-AC-18, or SG-AC-20<br>SG-A0-2<br>SG-C |
| ISO 14175 / AWS A5.32:  | M21*- CERT SUPPLIED<br>M13<br>C1         |
| Ar+CO <sub>2</sub> (15-25%) or Ar+O <sub>2</sub> or Welding Grade CO <sub>2</sub> |  |

WELDING POSITIONS:

All positional welding applications.

