

## AUTOCRAFT NiCrMo

### PRODUCT DATA SHEET



### A LOW ALLOY STEEL WIRE FOR THE GAS METAL WELDING OF HIGH STRENGTH STEELS



### GAS METAL ARC WELDING (MIG) WIRES

#### AUTOCRAFT NiCrMo

- A Low Alloy Steel Wire for the Gas Metal Welding of High Strength steels.
- 760 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 16834:   | B G 76A 4U M21 G |
| AWS/ASME-SFA A5.28: | ERT110S-G        |

#### TYPICAL DIFFUSIBLE HYDROGEN LEVELS TO AS3752:

1.0 - 2.0 mls of hydrogen / 100gms of deposited weld metal.

#### TYPICAL ALL WELD METAL MECHANICAL PROPERTIES:

|                  | Ar + 1-3% O <sub>2</sub> :    | Ar + 18-25% CO <sub>2</sub> : |
|------------------|-------------------------------|-------------------------------|
| Yield Stress     | 730 MPa                       | 707 MPa                       |
| Tensile Strength | 790 MPa                       | 770 MPa                       |
| Elongation 1     | 7%                            | 21%                           |
| CVN Impact Val.  | 130 J @ -29°C<br>80 J @ -51°C | 72 J @ -29°C<br>50 J @ -51°C  |

#### TYPICAL WIRE ANALYSIS:

|     |       |
|-----|-------|
| C:  | 0.08% |
| Mn: | 1.40% |
| Si: | 0.60% |
| Ni: | 1.40% |
| Cr: | 0.40% |
| Mo: | 0.25% |
| V:  | 0.10% |

## DESCRIPTION AND APPLICATIONS:

Autocraft Ni Cr Mo. is a low alloy steel wire suitable for the all positional Gas Metal Arc Welding of high strength steels. Autocraft Ni Cr Mo. produces a low alloy (nominally, 1.4%Ni, 0.4%Cr, 0.30%Mo, 0.10%V) steel weld deposit of the 690 MPa tensile class. Autocraft Ni Cr Mo. is suitable for the all positional fillet and butt welding of a wide range of high strength steels, particularly quenched and tempered types such as Bisalloy 80, USS-T1 types and Welten 80C etc. Autocraft Ni Cr Mo is not suitable for use in weldments which are to be stress relieved. For these applications 'Vanadium free' welding wires such as Tensicor 110 TXP H4 are recommended.

### STORAGE RECOMMENDATIONS:

When held under the recommended storage conditions unopened packs of Autocraft Ni Cr 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 weatherproof storerooms/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.

## RECOMMENDED\* SHIELDING GAS:

AS 4882: SG-AC-18, or SG-AC-20  
SG-A0-2  
SG-C

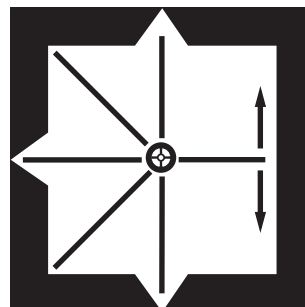
ISO 14175 / AWS A5.32: M21\*- CERT SUPPLIED  
M13  
C1

Ar+CO<sub>2</sub> (15-25%) or Ar+O<sub>2</sub> or Welding Grade CO<sub>2</sub>

The actual weld metal mechanical properties achieved with Autocraft Ni Cr Mo are influenced by many factors including, base metal analysis, welding parameters, shielding gas selection and number of passes etc. Please contact CIGWELD for welding procedure recommendations.

## WELDING POSITIONS:

All positional welding applications.



## 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        | 720057   |
| 1.2                | 18-32                 | 3.5-15                       | 120-350              | Spool     | 15kg        | 720053   |

\* Spool (ø300mm).

