



# WELDING CONSUMABLES FLUX CORED ARC WELDING (FCAW) WIRES

## VERTI-COR ULTRA 3



### TYPICAL ALL WELD METAL MECHANICAL PROPERTIES:

|                   |                                       |
|-------------------|---------------------------------------|
|                   | Using welding grade CO <sub>2</sub> : |
| Yield Stress      | 490 MPa                               |
| Tensile Strength  | 550 MPa                               |
| Elongation        | 28%                                   |
| CVN Impact Values | 90 J av @ -20°C.<br>55 J av @ -29°C   |

### TYPICAL ALL WELD METAL ANALYSIS USING CO<sub>2</sub> SHIELDING GAS:

|  |           |           |
|--|-----------|-----------|
| C: 0.02%   | Mn: 1.15% | Si: 0.30% |
| Ti: 0.035%   | B: 0.005% |           |
| <b>TYPICAL DIFFUSIBLE HYDROGEN LEVELS TO AS3752:</b>                                 |           |           |
| 5.0 - 6.0 mls of hydrogen / 100 gms of deposited weld metal*                         |           |           |
| * - for "as manufactured" product using welding grade CO <sub>2</sub> shielding gas. |           |           |

### APPROVALS\*:

|   |                     |
|---|---------------------|
| Lloyds Register of Shipping                           | Grade 3S, 3YS H5.   |
| American Bureau of Shipping                           | Grade 3SA, 3YSA H5. |
| Det Norske Veritas                                    | IIYMS H5.           |
| * - with welding grade CO <sub>2</sub> shielding gas. |                     |

### RECOMMENDED SHIELDING GAS:

Welding Grade CO<sub>2</sub>

### COMPARABLE CIGWELD PRODUCTS:

Autocraft LW1/LW1-6 GMAW  
Ferrocraft 61 MMAW

- ▲ A Microalloyed, Rutile Type Flux Cored Wire Formulated Exclusively for CO<sub>2</sub> Shielding Gas.
- ▲ Versatile, All Positional Capabilities.
- ▲ Excellent Operator Appeal.
- ▲ Low Spatter and Fume Levels.
- ▲ Grade 3, 3Y Shipping Society Approvals.
- ▲ Recommended for steel construction and fabrication welding where improved weld deposit impact toughness is required and the work cannot be rotated to the downhand positions.

### Classifications:

|                     |                         |
|---------------------|-------------------------|
| AS/NZS 2203.1:      | ETP-GCp-W503A. CM1 H10. |
| AWS/ASME-SFA A5.20: | E71T-1H8/E71T-12H8.     |

### Packaging Data:

| Wire Diameter (mm) | Type  | Pack Weight | Pack Part No. |
|--------------------|-------|-------------|---------------|
| 1.2                | Spool | 15kg        | 720891        |
| 1.6                | Spool | 15kg        | 720892        |

### Operating Data:

All welding conditions recommended below are for use with semi-automatic operation, DC electrode positive and welding grade CO<sub>2</sub> shielding gas with a flow rate of 10-15 litres/min.

| Wire Dia. (mm) | Current Range (amps) | Voltage Range (volts) | Electrode Stickout E.S.O. (mm) | Optimum Amps | Volts | Welding Positions |
|----------------|----------------------|-----------------------|--------------------------------|--------------|-------|-------------------|
| 1.2            | 250 - 300            | 27 - 31               | 20 - 25                        | 280          | 31    | Flat              |
| 1.6            | 350 - 400            | 27 - 31               | 25 - 30                        | 360          | 31    |                   |
| 1.2            | 230 - 280            | 26 - 30               | 20 - 25                        | 260          | 28    | HV Fillet         |
| 1.6            | 310 - 360            | 26 - 30               | 25 - 30                        | 320          | 29    |                   |
| 1.2            | 170 - 220            | 24 - 28               | 15 - 20                        | 200          | 24    | Vertical up       |
| 1.6            | 200 - 250            | 24 - 28               | 15 - 20                        | 240          | 25    |                   |
| 1.2            | 160 - 210            | 24 - 28               | 15 - 20                        | 200          | 24    | Overhead          |
| 1.6            | 190 - 240            | 24 - 28               | 15 - 20                        | 220          | 24    |                   |

These machine settings are a guide only. Actual voltage, welding current and E.S.O. used will depend on machine characteristics, plate thickness, run size, shielding gas and operator technique etc.

## VERTI-COR 80Ni1



### TYPICAL ALL WELD METAL MECHANICAL PROPERTIES:

|                   |                                       |
|-------------------|---------------------------------------|
|                   | Using Argon +20-25% CO <sub>2</sub> : |
| Yield Stress      | 520 MPa                               |
| Tensile Strength  | 600 MPa                               |
| Elongation        | 26%                                   |
| CVN Impact Values | 65J av @ -40°C                        |

### TYPICAL ALL WELD METAL ANALYSIS\*:

|   |            |           |
|---|------------|-----------|
| C: 0.06%                                | Mn: 1.35%  | Si: 0.35% |
| Ni: 0.90%                               | Ti: 0.035% | B: 0.007% |
| * - Using Argon +20-25% CO <sub>2</sub> |            |           |

### TYPICAL DIFFUSIBLE HYDROGEN LEVELS TO AS3752:

5.0-6.0 mls of hydrogen / 100gms of deposited weld metal \*.  
\* - for "as manufactured" product using Argoshield Argon +20-25% CO<sub>2</sub>.

### RECOMMENDED SHIELDING GAS:

Argon + 20-25% CO<sub>2</sub>

### COMPARABLE CIGWELD PRODUCTS:

Alloycraft 80-B2 MMAW  
Autocraft CrMo1 GMAW

- ▲ A Higher Strength Low Alloy Steel, Rutile Type Flux Cored Wire
- ▲ Formulated for Use with Argon +20-25% CO<sub>2</sub> Shielding Gases.
- ▲ Versatile, All Positional Capabilities.
- ▲ Excellent Operator Appeal.
- ▲ A Nominal 1% Nickel Steel Deposit of the 550 MPa tensile class.
- ▲ Typical applications include the under matching strength fillet welding of Bisalloy 60, 70 and 80 Quenched and Tempered steels.

### Classifications:

|                     |                         |
|---------------------|-------------------------|
| AS/NZS 2203.1:      | ETP-GMp-W554A. Ni1 H10. |
| AWS/ASME-SFA A5.29: | E81T1-Ni1MH8            |

### Packaging Data:

| Wire Diameter (mm) | Type  | Pack Weight | Pack Part No. |
|--------------------|-------|-------------|---------------|
| 1.2                | Spool | 15kg        | 720390        |
| 1.6                | Spool | 15kg        | 720391        |

### Operating Data:

All welding conditions recommended below are for use with semi-automatic operation, DC electrode positive and welding grade CO<sub>2</sub> shielding gas with a flow rate of 10-15 litres/min.

| Wire Dia. (mm) | Current Range (amps) | Voltage Range (volts) | Electrode Stickout E.S.O. (mm) | Optimum Amps | Volts | Welding Positions |
|----------------|----------------------|-----------------------|--------------------------------|--------------|-------|-------------------|
| 1.2            | 250 - 300            | 27 - 31               | 20 - 25                        | 280          | 31    | Flat              |
| 1.6            | 350 - 400            | 27 - 31               | 25 - 30                        | 360          | 31    |                   |
| 1.2            | 230 - 280            | 26 - 30               | 20 - 25                        | 260          | 28    | HV Fillet         |
| 1.6            | 310 - 360            | 26 - 30               | 25 - 30                        | 320          | 29    |                   |
| 1.2            | 170 - 220            | 24 - 28               | 15 - 20                        | 200          | 24    | Vertical up       |
| 1.6            | 200 - 250            | 24 - 28               | 15 - 20                        | 240          | 25    |                   |
| 1.2            | 160 - 210            | 24 - 28               | 15 - 20                        | 200          | 24    | Overhead          |
| 1.6            | 190 - 240            | 24 - 28               | 15 - 20                        | 220          | 24    |                   |

These machine settings are a guide only. Actual voltage, welding current and E.S.O. used will depend on machine characteristics, plate thickness, run size, shielding gas and operator technique etc.