



# PRODUCT DATA SHEET

## SOLID MIG WIRES - ALUMINIUM

WCD 6415

### Austmig 5183



#### SUMMARY

- > Aluminium-Magnesium-Manganese, Metal Inert Gas (MIG) Welding Wire
- > Precision Layer Wound and Double Shaved for Superb Feedability
- > For Welding of Alloys of the same Composition

#### CLASSIFICATION

- > AS/NZS ISO 18273 - S Al 5183
- > AWS A5.10: ER5183

#### DESCRIPTION AND APPLICATION

Austmig 5183 is a precision layer wound aluminium wire alloyed with Mg, Mn and Cr.

It is recommended for welding Al/Mg material of the 5083 type in the annealed condition, particularly for low temperature applications where good ductility and toughness are required, ie cryogenic plant. It may also be used for welding medium strength Al/Zn/Mg alloys of the 7020 type and joining 5083 alloy to 5456 alloy.

Welding grade Argon or Argon/Helium shielding gas combinations are recommended with flow rates of 10-20 litres/minute.

#### OPERATIONAL DATA

| WIRE SIZE (MM) | WELDING CURRENT RANGE (A) | ARC VOLTAGE RANGE *(V) |
|----------------|---------------------------|------------------------|
| 1.2            | 150 - 250                 | 20 - 27                |
| 1.6            | 200 - 350                 | 23 - 30                |

Welding Current DC +

\*Voltage is determined by arc current and electrode arc length.

Welding currents and voltage shown are operational guides only.

#### SHIPPING APPROVAL

LR WC/1-1S    **ABS** AWS A5. 10-92/ER5183    **DNV** 5183

#### TYPICAL ALL WELD METAL CHEMICAL ANALYSIS

| Si          | Fe   | Cu   | Mn        | Mg        |
|-------------|------|------|-----------|-----------|
| 0.4         | 0.4  | 0.1  | 0.5 - 1.0 | 4.3 - 5.2 |
| Cr          | Zn   | Ti   | Al        |           |
| 0.05 - 0.25 | 0.25 | 0.15 | Bal       |           |

#### TYPICAL ALL WELD METAL MECHANICAL ANALYSIS

|                  |         |
|------------------|---------|
| Gas Type         | Ar      |
| Yield Stress     | 110 MPa |
| Tensile Strength | 240 MPa |
| Elongation       | 17%     |

#### PACKAGING DATA

| WIRE SIZE (MM) | PACK SIZE AND TYPE | PART NO. |
|----------------|--------------------|----------|
| 1.2            | 6kg Spool          | M518312S |
| 1.6            | 6kg Spool          | M518316S |

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