



# PRODUCT DATA SHEET

## METAL-CORED GAS-SHIELDED WIRE

### FABCOR® 1100



#### SUMMARY

- > Excellent Wetting Characteristics
- > High Tensile Strength Electrode
- > High Deposition Rates Possible at Low Heat Inputs
- > Can Be Used with Standard CV Equipment
- > All-Position Capability When Using Pulsed-Spray Transfer

#### BENEFITS

- > Assists in Producing Smooth Weld Beads with Uniform Fusion
- > Suitable for Quench and Temper High-Strength Low-Alloy Steels
- > Increases Productivity, Minimises Heat Affected Zone (HAZ)
- > Promotes Versatility, Reduces Equipment Cost
- > Increases Productivity. Reduces Clean-Up Time

#### CLASSIFICATION

- > AWS A5.28: E110C-K4
- > AS/NZS 18276 B-T765T15-0AM U H5

#### APPLICATIONS

- > High-Strength Low-Alloy Steels
- > Quench and Temper Steels
- > Single Or Multi-Pass Welding
- > Castings
- > Heavy Equipment
- > Shipbuilding

#### OTHER

- > **Wire Type:** Gas Shielded, Metal Powder, Metal-Cored Wire
- > **Shielding Gas:** 75-95% Argon (Ar)/Balance Carbon Dioxide (CO<sub>2</sub>), 14-24 l/min
- > **Type of Current:** Direct Current Electrode Positive (DCEP)
- > **Standard Diameters:** 1.2mm & 1.6mm
- > **Re-Drying:** Not Recommended
- > **Storage:** Product Should be Stored in a Dry, Enclosed Environment, and in its Original Intact Packaging

#### CONFORMANCES & APPROVALS

- > **AWS:** A5.28, E110C-K4
- > **AWS:** A5.28M, E76C-K4
- > **ASME:** SFA 5.28, E110C-K4
- > **CWB:** 75-95% Ar/Balance CO<sub>2</sub>, E76C-K4-H4

#### TYPICAL ALL WELD METAL CHEMICAL ANALYSIS

	C	Mn	Si	S	P	Ni	Cr	Mo
75% Ar/25% CO <sub>2</sub>	0.07	1.52	0.52	0.007	0.004	1.92	0.18	0.47
90% Ar/10% CO <sub>2</sub>	0.08	1.50	0.50	0.005	0.003	1.84	0.24	0.46

#### TYPICAL DIFFUSIBLE HYDROGEN

HYDROGEN EQUIPMENT	75% Ar/25% CO <sub>2</sub>
Gas Chromatography	2.1 ml/100g

#### TYPICAL ALL WELD METAL MECHANICAL ANALYSIS (AS WELDED)

MECHANICAL TESTS	75% Ar/25% CO <sub>2</sub>	90% Ar/10%CO <sub>2</sub>
Tensile Strength	810 MPa	883 MPa
Yield Strength	725 MPa	800 MPa
Elongation	19%	17%
CVN Impact Values	58J @ -50 °C	38J @ -50 °C

#### PACKAGING DATA

WIRE SIZE (MM)	PART NUMBER	PACKAGING TYPE
1.2	S280212-029	15kg Spool
1.6	S280219-029	15kg Spool





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#### OPERATIONAL DATA

WIRE SIZE (MM)	WELD POSITION	AMPS	VOLTS	WIREFEED SPEED	DEPOSITION RATE	CONTACT TIP TO WORK DISTANCE (MM)
				M/MIN	KG/HR	
1.2	Flat & Horizontal	200	24	5.7	2.6	16
1.2	Flat & Horizontal	250	25	7.9	3.7	16
1.2	Flat & Horizontal	300	27	11.3	5.4	19
1.2	Flat & Horizontal	350	29	14.2	6.8	19
1.6	Flat & Horizontal	250	26	4.1	3.2	19
1.6	Flat & Horizontal	300	27	5.6	4.7	25
1.6	Flat & Horizontal	350	28	7.2	6.2	25
1.6	Flat & Horizontal	400	29	9.0	7.8	25
1.6	Flat & Horizontal	450	30	10.5	9.1	25

- Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.
- For out of position welding, short circuit or pulsed spray transfer mode must be used.
- See Above: This information was determined by welding with 90% Ar/10% CO<sub>2</sub> shielding gas with a flow rate between 14-24 l/min. For 75% Ar/25% CO<sub>2</sub> shielding gas, increase listed voltages by 1-3 volts.

The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Welding Industries of Australia expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with the AWS A5.28 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by Welding Industries of Australia.

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