PRODUCT DATA SHEET

METAL-CORED GAS-SHIELDED WIRE

WCD 6808

FABCOR® 86R

SUMMARY

- High Deposition Rates and Efficiencies
- Virtually no Slag Coverage
- Outstanding High-Production Performance
- Smooth Arc Characteristics
- Low Diffusible Hydrogen Weld Deposit
- Low Smoke and Spatter Levels
- Excellent for Both CV and Pulsed Welding

BENEFITS

- Improves Productivity Compared to Solid Wire or Flux-Cored Electrodes
- Reduces Clean-Up Time, Improves Productivity
- Excellent for Robotic Welding
- Improved Operator Appeal, Assists in Maintaining Consistent Weld Quality
- Minimizes Risk of Hydrogen-Induced Cracking
- Improves Operator Appeal and Productivity
- Promotes Versatility in Procedure Development

CLASSIFICATION

- AS/NZS ISO 17632-B - T494T15-0MA-UH5
- AS/NZS ISO 17632-A - T46 3 M M21 3 H5
- AS/NZS ISO 17632-A - T46 3 M M20 3 H5
- AWS A5.18: E70C-6M H4

DESCRIPTION AND APPLICATION

A metal cored wire with higher deoxidization elements allow this wire to have greater tolerance for mill scale welding applications. Single and multiple pass applications.

- Automatic and Mechanized Welding
- Non-Alloyed and Fine Grain Steels
- Earthmoving Equipment
- Shipbuilding
- Storage Vessels
- Steel Structures
- General Fabrication
- Rail Cars

OTHER

- **Wire Type:** Gas Shielded, Metal Powder, Metal-Cored Wire
- **Shielding Gas:** 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2), 95% Argon (Ar)/5% Oxygen (O_2), 17-24 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

TYPICAL ALL WELD METAL CHEMICAL ANALYSIS

C	Mn	Si	S	P
0.03	1.44	0.67	0.015	0.008

TYPICAL DIFFUSIBLE HYDROGEN*

HYDROGEN EQUIPMENT	75% Ar/25% CO_2	90%Ar/10%CO_2
Gas Chromatography	2.0ml/100g	2.1ml/100g

TYPICAL ALL WELD METAL MECHANICAL ANALYSIS (AS WELDED)

MECHANICAL TESTS	75% Ar/25% CO_2	90% Ar/10% CO_2
Tensile Strength	558 MPa	598 MPa
Yield Strength	476 MPa	521 MPa
Elongation	30%	28%
CVN Impact Values	101J @ -30°C 54J @ -40°C	71J @ -30°C 51J @ -40°C

PACKAGING DATA

WIRE SIZE (MM)	PART NUMBER	PACKAGING TYPE
1.2	S249412-029	15kg Spool
1.2	S249412-050	227kg X-pak
1.6	S249419-029	15kg Spool

CONFORMANCES & APPROVALS

- **ABS:** 80% Ar/20% CO_2, 3YSA (0.035" - 1/16" diameter electrodes)
- **Bureau Veritas:** 80% Ar/20% CO_2, S3YMH5 (1.2mm - 1.6mm diameter electrodes)
- **DNV:** 80% Ar/20% CO_2, III Y40MS(H5)
- **CE:** Marked per CPR 305/2011 (1.2mm - 1.6mm diameter electrodes)
- **Lloyd's Register:** 80% Ar/20% CO_2, 3Y40S H5
- **AWS:** D1.8/D1.8M, 75% Ar/25% CO_2, (1.2mm - 1.6mm diameter electrodes)

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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	27	6.1	2.7	19
1.2	Flat & Horizontal	250	29	8.7	3.9	19
1.2	Flat & Horizontal	300	32	10.7	5.1	19
1.2	Flat & Horizontal	350	35	14.5	7.1	19
1.2	Flat & Horizontal	400	36	18.4	9.0	19
1.6	Flat & Horizontal	250	29	4.1	3.2	25
1.6	Flat & Horizontal	300	31	5.2	4.3	25
1.6	Flat & Horizontal	350	32	6.5	5.4	25
1.6	Flat & Horizontal	400	34	8.1	7.0	25
1.6	Flat & Horizontal	500	36	12.7	11.1	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.
- See Above: This information was determined by welding using 75% Ar/25% CO_2 shielding gas with a flow rate between 17-24 l/min. When using 90% Ar/10% CO_2 shielding gas, reduce voltage 1-3 Volts.

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