



# PRODUCT DATA SHEET

## WCD 6747

# SEAMLESS FLUX CORED MIG WIRE

## FLUXOFIL M42 H<sub>5</sub>



- ▶ Metal Core Low Alloy Wire
- ▶ Seamless, Tubular, Copper Coated Low Alloy FC Wire
- ▶ Very Low Hydrogen "H<sub>5</sub>" Status
- ▶ High 800 Mpa Strength High Tensile Steels
- ▶ Excellent Low Temperature -51°C Weld Metal Impact Properties
- ▶ Formulated for use with Argon Based Gas Mixtures

### Classifications

AS 2203.1 ETD-GMp-W769A. K4 H5 (superseded).

AS/NZS ISO 18276 BT 76 5 T15 O M A N4C1M2 H5\*

AWS A5.29 E110TG-K4

\*New classification replaces AS/NZS 2203.1

### Description & Applications

FLUXOFIL M42 is a basic, metal cored low alloy wire for use with Argon base gas mixtures. FLUXOFIL M42 deposits a nominal 0.5%Cr / 2%Ni / 0.5%Mo steel weld metal which combines a high strength level of the 800 MPa class with excellent low temperature impact toughness to -50°C. The weld metal is similar to that obtained with the Weldwell 118 electrode. FLUXOFIL M42 is ideal for the full strength welding of high tensile steels, in particular Quenched and Tempered (Q & T) types, such as Bisplate 80, HY100, USST1 and Welten 80C. Resultant weld deposits have excellent toughness in the "as welded" condition. Particularly suited for automated and robotized machines.

### Operational Data

Welding parameters shown below are for DC Electrode Positive, using Argon +18% CO<sub>2</sub> shielding gas at a flow rate of 12-16 litres/minute.

WIRE SIZE (mm)	WELDING CURRENT RANGE (amps)	ARC VOLTAGE RANGE (volts)*	TYPICAL STICKOUT (mm)
1.2	120 - 250	17 - 29	19
1.6	150 - 360	20 - 30	25

Welding current DC +

\*Voltage is determined by arc current and wire arc length. Welding currents and voltage shown are operational guides only.

### Typical All Weld Metal Chemical Analysis

C	Mn	Si	Cr	Ni	Mo	Fe
0.07	1.3	0.6	0.45	2.2	0.40	Bal

### Typical All Weld Metal Mechanical Properties

Gas Type	Ar+18% CO <sub>2</sub>
0.2% Yield Stress	800 Mpa
Tensile Strength	860 Mpa
Elongation	18%
CVN Impact Values	35J @ -51°C

In as welded position

### Packaging Data

WIRE SIZE (mm)	PACK SIZE (kg)	PART NUMBER
1.2	15	M4212S
1.6	15	M4216S

### Storage Information

Products should be stored in dry conditions in original sealed undamaged packaging as supplied. The integrity of consumable products can be adversely affected by time and storage conditions and that the detail shown in the batch certificate is true at the time of packaging and is only valid for a LIMITED time. After that time the product may need to be reconditioned or checked to ensure it is suitable for the purpose it is intended to be used for.\*

Although FLUXOFIL M42 is copper coated, the wire is not immune to deterioration. Wire should be stored in a plastic bag provided when not in use for extended periods. Recommended conditions of storage are a minimum temperature of 15°C and a maximum humidity of 60% RH.

\*NOTE: Refer to Welding Technology Institute of Australia (WTIA), technical 3. care and conditioning of arc welding consumables.

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