



### UNICORD 312



- ▶ Universal AC/DC Maintenance Electrode for Welding Ferrous Metals
- ▶ Ideal for Joining Dissimilar Steel Components
- ▶ Suitable as a Buffer Layer Prior to Hard Surfacing
- ▶ Stable Performance on Low OCV Welders

#### Identification

**Coating** - Grey    **End Tip** - Red    **Imprint** - Unicord 312

#### Classifications

AS/NZS 1553.3	E312-16 (Superseded)
AWS A5.4	E312-16
AS 2576	1330-A3
WTIA Tech Note 4	1330-A3
AS/NZS	4854 ISO 3581B ES312-16*

\*New classification replaces AS/NZS 1553.3

#### Description & Applications

UNICORD 312 is a basic, rutile type electrode depositing a 29%Cr/9%Ni stainless steel weld metal for the high strength welding of a wide range of alloy steels and dissimilar ferrous metals. The high ferrite, austenitic stainless steel deposit has excellent resistance to hot cracking, even under dilution by high carbon, alloy and tool steels. Unicord 312 is a universal maintenance electrode combining high strength, toughness, wear and corrosion resistance with compatibility to most ferrous metals. Unicord 312 is suitable for many repair and maintenance applications on steels of unknown composition. It is an ideal electrode for welding medium to high carbon steels, low alloy steels and dissimilar ferrous metal combinations. Unicord 312 is also suitable as a buffer or intermediate layer prior to the application of hard surfacing.

#### Operational Data

ELECTRODE SIZE (mm)	ELECTRODE LENGTH (mm)	WELDING CURRENT RANGE* (amps)	ARC VOLTAGE RANGE (volts)**
2.5	300	50 - 75	22
3.2	350	75 - 110	26

\*Recommended for DC+ or AC (minimum 45 OCV) operation

\*\* Voltage is determined by arc current and electrode arc length. Arc voltage shown are typical and are only to be used as a guide.

#### Issue AB

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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 is obtained when welded and tested in accordance with the AWS and or AS/NZS specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique by Welding Industries of Australia.

#### Typical All Weld Metal Chemical Analysis

C	Mn	Si	Cr	Ni	Mo
0.04	0.9	0.85	30.0	9.0	Bal

#### Typical All Weld Metal Mechanical Properties

Yield Stress	500 Mpa
Tensile Strength	770 Mpa
Elongation	35%
Deposit Hardness	28 - 35 HRC

In as welded condition.

#### Packaging Data

ELECTRODE SIZE (mm)	PACKAGING (KG)			APPROX NO OF RODS PER KG	PART NUMBER
	Packet	Carton	Mini Pack		
2.0	2.5	15	0.5	52	UC31225 UC31225M
2.1	2.5	15	0.5	27	UC31232 UC31232M

#### 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.\*

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