



# PRODUCT DATA SHEET

## STAINLESS STEEL ELECTRODES

WCD 6127

### Unicord 312



#### SUMMARY

- > 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 **Tip** - Red **Imprint** - Unicord 312

#### CLASSIFICATION

- > AS/NZS 4854-B - ES312-16
- > AWS A5.4: E312-16

#### DESCRIPTION AND APPLICATION

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 *(A)	ARC VOLTAGE RANGE **(V)
2.5	300	50 - 75	22
3.2	350	75 - 110	26

\*Recommended for DC +/- or AV (minimum 45 OCV) operation.  
 \*\*Voltage is determined by arc current and electrode arc length.  
 Arc voltage shown is typical and is only to be used as a guide.

#### TYPICAL ALL WELD METAL CHEMICAL ANALYSIS

C	Cr	Ni	Mo	Mn	Si	P	S	Cu
0.03	28.61	8.99	0.11	1.04	0.71	0.023	0.024	0.12

#### TYPICAL ALL WELD METAL MECHANICAL ANALYSIS

Yield Stress	500 MPa
Tensile Strength	770 MPa
Elongation	45%
Deposit Hardness	28 - 35 HRc

In as welded condition.

#### PACKAGING DATA

ELECTRODE SIZE (MM)	PACKAGING (KG)		APPROX. NO. OF RODS PER KG	PART NO.
	PACKET	CARTON		
2.5	2.5	12.5	53	UC31225
3.2	2.5	12.5	27	UC31232

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