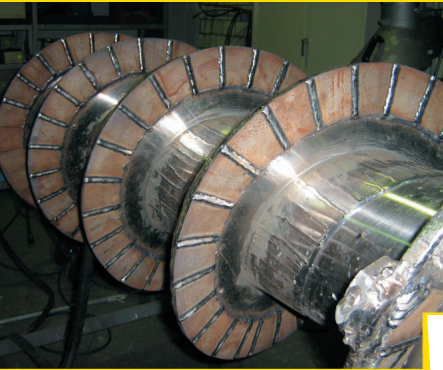


Sintered, Tungsten Carbide Electrode for Use on a Wide Variety of Steels

EutecTrode® 4914



WELDING

- Exceptional abrasion resistance
- Extremely hard and smooth deposits
- Contains ultra-hard complex carbides
- Easy to strike
- Minimal slag residues



DESCRIPTION:

Eutectic's EutecTrode 4914 is a dip-coated manual metal arc welding electrode comprised of a sintered tungsten carbide in a FeCrC matrix and niobium and chromium additives.

4914 is designed to be used where hard, wear resistant overlay deposits are needed and where impact is minimal. Deposits of 4914 resists wear, abrasion, erosion from sand, ceramics and other hard minerals, and metal-metal friction, even after just one layer. The performance is good up to 930°F (500°C).

EutecTrode 4914 may be used on nearly all steel substrates like mild steels, cast steels, low alloyed and high Mn steels. It is also appropriate for use on thin-walled metals and edges.

TECHNICAL DATA:

Hardness 1st Layer: 63 - 66 HRC
Hardness 2nd Layer: 66 - 70 HRC
Weld Deposit Density: 12.2 g/cm³
Service Temperature: 930°F (500°C)
Current/Polarity: DC+ (reverse polarity)
Positions: Flat and Horizontal

TYPICAL WELDING PARAMETERS

Diameter	Amperage
5/32" (4.0 mm)	150-170

WELDING PARAMETERS:

Preparation: Remove all damaged and fatigued base material and where possible remove sharp corners from areas to be welded by using ChamferTrode.

Pre-Heating: Before welding, a slow, uniform preheat to a temperature of 212°F to 392°F (100°C to 200°C) is recommended to avoid delayed cracking, depending on the substrate composition.

For a general guide: Preheating will depend upon type, size and carbon equivalent of the base material. For steels with a carbon equivalent of up to 0.25% preheating is not essential. However, heating up to 212°F (100°C) may be applied. For steels between 0.25% and 0.45% carbon equivalent, preheating between 212°F and 482°F (100°C and 250°C) is recommended. Steels above 0.45% carbon equivalent, preheating between 482°F and 662°F (250°C and 350°C) is recommended.

Do not preheat austenitic manganese steels. Maintain components as cool as possible, and employ a balanced welding technique, in order to avoid local overheating.

Welding: Select the lowest possible amperage when depositing direct to the base material. Short arc is recommended. When necessary, nearly vertical welding can be accomplished. For hardenable steels use a buffer layer.

Post-Welding: Deposits are not machinable or forgeable, but can be ground to dimension or finished with diamond tools.

TYPICAL APPLICATIONS:

For protecting components against abrasion and erosion, typically used in mining and ceramics industries. Suitable for a wide range of steels including low alloy steels, medium carbon steel, high alloy steels, tool steels and cast steels.

Typical application examples are:

- Conveyor Screws for brick production
- Mixer Blades used for concrete, clays and other minerals
- Brick Manufacturing and Clay Processing Equipment
- Press Augers
- Mixers
- Breaker Housings
- Screen Centrifuges
- Fans

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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