SafeHard 700

Gas Shielded Continuous Electrode For Semi-Automatic And Robotic Welding

DESCRIPTION

Gas shielded, metal cored alloy wire, ideal for batch manufacturing or maintenance and repair applications where highest integrity welding, efficiency and productivity are required.

This exclusive alloy is chrome and nickel free and contains complex carbides of tungsten, molybdenum, vanadium and niobium evenly distributed in a boron hardened matrix. This alloy has exceptional resistance to impact and abrasion and it keeps its mechanical properties until high temperature (57 HRC at 600ºC; 41 HRC at 700ºC).

Product Details

- Martensitic–austenitic micro structure
- Low heat input for low dilution.
- Maximized weld metal recovery.
- Exceptional weldability.
- Regular bead profile.
- Versatile usage over wide parameter range.
- Faster deposition rate for reduced labour costs.
- Weldability in all positions

APPLICATIONS

Designed specifically to provide protective coating against wear caused by impact, adhesion (metal-metal friction) and abrasion in industries such as:

Mines and quarries : Drill heads, breaker plates, crusher drums, conveyor and drag-line buckets.

Civil engineering : Gravel pumps, rails, crusher hammers, bucket ripper teeth, vehicle tracks, soil compactors.

Urban and industrial waste disposal : Grilles and frames of rotary sleeves, crushers, hydraulic compactors.

PROCEDURE FOR USE

Welding Equipment : EnDOtec continuous electrodes are compatible with most conventional, constant voltage power sources. Models with programmable, pulsed arc, metal transfer modes offer optimal performance.

Castolin Eutectic recommends using wire drive systems fitted with 4 knurled feed-rollers as well as polyamide liners.

Preparation: Remove old welding deposits and worn metal completely with ExoTrode Remove old welding deposits and worn metal completely with ExoTrode

Preheating: depends on the steel›s Carbon Equivalent, and the workpiece size, thickness and geometry. Castolin Eutectic recommends:

CE < 0.2 : preheat not essential

CE 0.4- 0.2 : preheat 200-100.C

CE 0.8- 0.4 : preheat 350-200.C.

Note that 12-14% Mn steels should never be preheated and the workpiece temperature during welding should be kept below 250°C. Intermediate layer On 12-14% Mn steels, deposit an intermediate layer with EnDOtec DO*02 or with the manual electrode EutecTrode 646XHD.

Welding parameters: Welding current: = (+)

Welding technique: For single or multipass, downhand coating applications.Push the electrode at an angle of 80-70.to ensure optimal fusion. When required, additional passes should only be executed while the weld is still hot.

Machining: The deposit is machinable by grinding. Arc or plasma cutting equipment may also be used.

TECHNICAL DATA : Typical hardness: 600HB

Shielding gases : General recommended:

82% Ar, 15-25% CO2 [EN ISO 14175 -M21]

Flow rate(L/min) : 14-18 CrVIcontent : 0 mg/m3

Current polarity: /DC (+)

Electrode(mm)	Voltage (V)	Current (A)
1.2mm	11-34	40-300
1.6mm	15-38	60-420

Note: For optimum result use the lowest amperage practical