

TeroMatec OA 3205

Self-Shielded, Continuous Electrode For Semi-Automatic And Robotic

DESCRIPTION

Special, self-shielded, flux cored alloy wire specifically developed for outdoor maintenance and repair welding of thick, heavy components where faster weld deposition rates over traditional coated electrodes, are required. Worn or new critical parts may be cost effectively TeroCote protected either manually or fully automatically to extend their useful service life and increase productivity and profitability. High chromium manganese austenitic alloy for wear-preventive coating of carbon steels, low or high alloy steels and 14% manganese steels.

- Maximum resistance to heavy impact and compression High resistance to cracking and plastic deformation
- Rapid work hardening characteristics Machinable, rust free deposits.
- Easy slag removal
- Low metal / metal friction coefficient. Maximum service temperature 300°C.
- Ideal choice for field work or on site applications No need for costly gas cylinders, regulators or flow meters
- Relatively thick, wide overlays possible in single pass
- No enforced stop - starts increase welding duty cycles
- Superior electrode efficiency due to low flux to metal ratio
- No stub end losses promotes material cost savings
- Variable electrode stick out capability improves control over heat input, dilution, deposition rate, visibility and access in tight spaces

APPLICATIONS

For buttering layers prior to harder overlays and wear-preventive coating of crane rollers, crusher cylinders, shovel buckets, mobile crane rails, rail points, coupling of rolling mill extensions, shovel teeth, etc.

PROCEDURE FOR USE

Preparation: Remove old welding deposits and worn metal completely with ExoTrodé. For thick-section butt joints or horizontal fillets, use a single or double V preparation

Preheating: 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

Welding parameters : Welding current: = (+)

Welding positions : PA, PB, PC according to ISO 6947

Welding technique: After striking, maintain the wire stick-out around 40 mm with an arc length approx. 7 mm. Longer wire stick-out will further increase deposition rates. For optimum deposit quality, use drag stringer bead or moderate weaving techniques to minimise heat input & overheating risks

Machining: Weld deposits are machinable with standard cutting tools.

Soluble oil lubricification improves machining efficiency.

TECHNICAL DATA

Typical hardness As welded : 250 BN

After work hardening : 390 HB

Elongation A5 (%): 25

Current polarity: DC (+)

Electrode(mm)	Voltage (V)	Current (A)
1.6mm	26-30	100-220
2.8mm	26-30	250-375