

TeroMatec OA 3302

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. Versatile austenitic Cr Ni Mn alloy for intermediate layers and rebuilding before hard surfacing on heat treatable alloy steels and 14% manganese steel,. Also recommended for joining thick section parts in dissimilar steels.

- High resistance to impact, pressure and metal/metal friction.
- High resistance to cracking and plastic deformation.
- Rapid work hardening characteristics
- Ideal for thick, multi-pass, protective coatings
- Thermal cycling and oxidation resistant up to 600°C
- Non-magnetic, readily machinable deposits
- Machinable, rust free deposits.
- Very good corrosion resistance
- Ideal choice for field work or on site applications
- Easy slag removal
- 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 multi-pass intermediate layers, anti-wear coatings, and joining thick steel parts of dissimilar composition.

Railway points, curved tramlines, crusher bars and jaws, gyratory crusher cones, hydra-turbines, cylindrical crusher jaws, drive sprockets, rolling mill guides, etc.

PROCEDURE FOR USE

Preparation: Remove old welding deposits and worn metal completely with ExoTrobe 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 positions: PA, PB according to ISO 6947

Welding technique: After striking, maintain the wire stick-out around 40 mm with an arc length flow meters 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 minimize heat input & overheating risks.

Soluble oil lubrication improves machining efficiency.

TECHNICAL DATA

Tensile strength: 600 N/mm² (87,000 psi)

Yield strength : 400 N/mm² (58,000 psi)

Typical hardness As welded: 190 HB

After work hardening : 430 BN

Elongation A5 (%) : 40

Current polarity: DC (+)

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