EnDOtec. DO*351

Seamless, Gas Shielded Continuous Electrode For Semi-Automatic And Robotic Welding Applications

DESCRIPTION

Seamless, gas shielded, metal cored alloy wire, ideal for batch manufacturing or maintenance and repair applications where highest integrity welding, efficiency and productivity are re-quired.

High alloy Cr-Si-C steel for wear protective coatings. The air hardening deposit offers excellent resistance to wear caused by impact, adhesion (metal-metal friction) and abrasion. The forgeable deposit can be heat-treated or nitrided and with-stands thermal shock.

- Low heat input for low dilution.
- Maximizedweld metal recovery.
- Exceptional positional weldability.
- Regular bead profile, virtually spatter free.
- Versatile usage over wide parameter range.
- Faster deposition rate for reduced labour costs

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 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 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 0.2 -0.4 : preheat 100-200.C

CE 0.4 -0.8 : preheat 200-350.C

Note that 12-14% Mn steels should never be preheated and the workpiece temperature during welding should be kept below250.C. Intermediate layer .Deposit a buttering layer of EnDOtec DO*02 on austenitic manganese steels and EnDOtec DO*310 or DO*257 on mild and high strengthsteels.

Welding technique

For single or multipass, downhand coating applications. Push the electrode at an angle of 70-80.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.

TECHNICALDATA

Typical hardness : 58 HRC

Current polarity: DC (+)

Shielding gases

Recommended gas:82% Ar-18% CO2 [EN ISO 14175M21]

Alternative gases:97,5% Ar, 2,5%CO2 [EN ISO 14175M12]

Flow rate(l/min):14-18

Electrode(mm)	Voltage (V)	Current (A)
1.2mm	12-36	50-320
1.6mm	16-38	60-420