



EnDOtec® DO*14

Resists Metal/Metal Friction, Good heat resistance

Description:

Exclusive, gas shielded alloy in small diameter. Endotec DO*14 has been developed as a protective overlay on parts subjected to combined wear phenomena, Abrasion, impact and pressure. It is ideal for maintenance and repair applications or batch manufacturing where highest integrity welding, efficiency and productivity are required.

The slag free deposit is forgeable and can be heat treated. It is ideal for coating carbon steels, both low and high alloy steels, and manganese steels.

- Resistant to abrasion, & impact
- Hard, tough deposits are crack free
- Resists metal – metal friction.
- Good heat resistance for tooling applications to 500°C
- Deposits respond to heat treatment
- Multiple layer capability
- Deposits are machinable with carbide tools
- Increased welding speeds-less starts & stops
- Higher quality welds
- Less distortion; reduced heat affected zone
- Resists spalling and impact induced cracking
- No "sticking" of electrode or inclusions.
- Low heat input for low dilution.
- Maximum weld metal recovery.
- Excellent bead appearance, no spatter, high arc stability
- Exceptional all-positional weldability

Technical data:

Hardness as welded (HRC): 45 Rc

Deposits are magnetic, machinable, deep hardening

Shielding gases:

Recommended gas: 98% Ar, 2 O₂ Spray transfer
Co₂ Short circuiting

Alternative gases: 75% Ar, 25% CO₂ [

Flow rate (l/min): 12-16 l/min

Applications:

- Buckets and shovels
- Hot and cold forming dies
- Hot and cold shear blades
- Excavating equipment
- Sprockets
- Trunions
- Steel mill rolls
- Augers and scrapers
- Rams and punchers

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. E+C recommends using wire drive systems fitted with 4 feed-rollers - smooth rollers for Ø 1.2 mm and knurled rollers for Ø 1.6 mm - 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. E+C recommends:

CE < 0.25 : preheat not essential

CE 0.25 - 0.45: preheat 100-200°C

CE 0.45 - 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 below 250°C.

Welding parameters:

Welding current := (+)

Diameters	1.2 mm		1.6 mm	
	Short arc	Spray arc	Short arc	Spray arc
Arc voltage (V)	14-18	18-28	16-20	25-30
Amperage (A)	100-220	130-250	100-220	220-350

Welding technique:

For multi-pass, downhand coating, push the electrode along the workpiece at an angle of 70-80°, to ensure optimum fusion.

Machining:

The deposit is machinable by carbide tools. Arc, oxyacetylene or plasma cutting equipment may also be used.

Packaging:

EnDOtec continuous electrodes are precision wound on recyclable, wire spools (DIN 8559, K300) to a standard weight of 12.5 kg and specially packed for optimum, storage protection.

DIGITALWELD

J.D.M Holdings Ltd

Unit D/17 Hobill Avenue, Wiri, Manukau, 2104. P.O Box 97622 Manukau City, Manukau 2241, New Zealand

Ph: +64 (09) 263 7099 Fax: +64 (09) 263 5062 Email: sales@digitalweld.co.nz Website: www.digitalweld.co.nz