



EnDOtec® DO*11

Tungsten carbide, gas shielded, metal cored alloy wire.

Description:

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

The slag-free deposit features a high density of very hard, cast tungsten carbide particles evenly distributed in a nickel alloy matrix which is further reinforced with very fine precipitates formed by re-crystallisation. This gives exceptional resistance abrasive-erosive particles with moderate impact and specifically for service in hot or corrosive environments.

- Deposits are crack resistant which prevents ingress and contamination by organic matter or bacterial growth.
- Low heat input for low dilution
- Maximum weld metal recovery
- Excellent bead appearance, no spatter, high arc stability
- Great flexibility in operation
- Exceptional all-positional weldability
- High deposition rate for reduced labour costs

Technical data:

Standards:

DIN 8555: MF 21-55-CGTZ

Mechanical properties:

Hardness after welding: ~55 HRC

Micro hardness of carbides: 2400HV

Shielding gases:

Recommended gases:

97% Ar, 3% CO₂

[EN 439 M13] for pulsed and spray arc.

Flow rate (l/min): 12-16

Applications:

Designed specifically for anti-wear protective coatings on carbon steels, alloy steels, stainless steels and nickel alloys.

Typical industries include agricultural, food, beverage, organic oils, pulp and paper, chemical processing.

Oil pressing parts, transport screws, cellulose mixing blades, paddles, conveyors, bone mill hammers, Mines and cement works:

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 ChamferTrode 03/04.

Preheating:

Preheating depends on the steel's Carbon Equivalent, and the work piece size, thickness and geometry. E+C 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 below 250°C.

Welding parameters:

Welding current: = (+)

Diameters	1.6mm
Transfer type	Short arc
Arc voltage (V)	17-32
Amperage (A)	80-360

Welding technique:

For single pass, down hand coating applications. Push or pull the electrode at an angle of 70-80° to ensure optimal fusion. If required, a maximum second pass 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.

Packaging:

EnDOtec continuous electrodes are precision wound on recyclable, wire spools (DIN 8559, K300) to a standard weight of 15 kg and specially packed for optimum, storage protection.

DIGITALWELD

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