



Specially formulated to protect forming tools against abrasion and severe impact

EnD0tec®

DO*15

- Excellent arc stability for coating edges and precision coatings
- High deposition rate for reduced labor costs
- Hard, tough deposit with no slag or scale
- Very low dilution with base metal
- Non “sticking” of electrode or inclusions

EnDotec® DO*15

EnDotec® DO*15 has been developed for protective coatings of parts subject to combined wear phenomena: pressure, abrasion and severe impact.

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. The deposit can be finished by grinding.

Main features:

- Magnetic deposit
- Hard, tough deposit with no scaling
- No "sticking" of electrode or inclusions
- Low heat input for low dilution
- Maximum weld metal recovery
- Excellent bead appearance, no spatter, high arc stability
- High deposition rate for reduced labour costs

TECHNICAL DATA

Typical Values	
Hardness as-deposited:	55-60 HRC
Current & Polarity:	DC (+) electrode positive

DIAMETER	SHIELDING GAS	AMP	VOLT	WIRE STICKOUT
0.045" (1.2 mm) spray	Ar + 2% O ₂	150-250	24-29	5/8 ± 1/8" (12mm - 15mm)
0.045" (1.2 mm) short arc	75% Ar + 25% CO ₂	100-180	14-18	9/16 ± 1/16" (9mm - 16mm)
1/16" (1.6 mm) spray	Ar + 2% O ₂	220-330	25-30	5/8 ± 1/8" (12mm - 15mm)
1/16" (1.6 mm) short arc	75% Ar + 25% CO ₂	130-200	15-19	9/16 ± 1/16" (14mm - 16mm)

PROCEDURE FOR USE

Preparation

Clean weld area of scale and/or oxide. A nominal preheat of 150°F (65°C) is advised if part is below 40°F (5°C) or over 1" (25mm) thick. For higher carbon steels higher preheats will be needed. Do not preheat manganese steel castings above 400°F (205°C) as this will cause time-temperature embrittlement.

Technique

Maintain the optimum electrode stickout and hold a 75° angle from the vertical in the direction of travel. Do not weave excessively. Wide beads can cause porosity, excessive base metal overheating, and degrade the weld deposit wear properties. Back whip craters to reduce cracking tendencies and potential out-gassing.

Post-welding

Allow parts to slow cool in still air. High carbon steels and air hardenable steels should be covered with a heat-retardant blanket or by other means. If steel composition is unknown, slow cool at a rate of 100°F (38°C) per hour.

TYPICAL APPLICATIONS

Designed for the protective coating of:

- Drills
- Conveyor chains
- Gravel pumps
- Hot and cold forming tools

