EnDOtec DO*270







- Seamless metal cored wire
- Enhanced arc stability and less spatter
- Low heat input, low fume emission
- High yield alloy
- Especially suitable for automated applications



DESCRIPTION:

EnDOtec® DO*270 is a high performance seamless metal cored wire for single or multipass welding of carbon, carbon-manganese and similar types, including fine grained steels with Ar/CO_2 shielding gas or pure CO_2 . Ideal for manual or automated production welding.

High yield, good weldability, excellent bead appearance, no spatter or slag and exceptional mechanical properties at low temperatures (-40°F). This wire is especially suitable for automated and robotized applications.

TECHNICAL DATA:

Specifications: AWS/ASME A5.36:

E70T15-M21A8-CS1-H4

Certified by the CWB to CSA W48-14:

E491C-6J-H4 / E491C-6MJ-H4

Ar/CO₂ - CO₂

Typical Tensile Strength: 94,000 psi / 648 MPa

Yield Strength: 66,700 psi / 460 MPa

Elongation: 24%

Charpy V Notch: $KV (-40^{\circ}C) > 47J (80J)$

Polarity: DC+

TYPICAL APPLICATIONS:

Shipbuilding, rolling stock, high temperature pressure vessels.

PROCEDURE FOR USE:

Preparation

Oxide, dirt or oil should be completely removed prior to welding in order to prevent porosity in the weld metal.

Preheating Steels

Carbon steels less than 1" (25.4 mm) thick and with less than .30% carbon generally do not require preheat. Welding on highly restrained joints is an exception. These joints should be preheated to 50°–100°F (10°–38°C) to minimize shrinkage cracks in the base metal and the weld deposit. Low-alloy steels, such as the chrome-moly steels, have hard heat-affected zones after welding if the preheat temperature is too low. The hard heat-affected zones are caused by the rapid cooling rate of the base material and the formation of martensitic grain structures. A 200°–400°F (93°–204°C) preheat temperature slows down the cooling rate and prevents the formation of a martensitic structure.

TYPICAL ANALYSIS	C	Mn	Si	Р	S	Fe
Ar + 20% to 25% CO ₂	0.06	1.40	0.35	<0.025	<0.025	Base
100% CO ₂	0.05	1.30	0.30			

WELDING PARAMETERS	SHIELDING GAS	AMPERAGE	VOLTAGE	FLOW RATE
1.2 mm (0.045")	A/CO CO	50-320	12-35	14-20 l/min
1.6 mm (1/16")	Ar/CO ₂ - CO ₂	60-390	16-37	30-42 cfh

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