Castolin Eutectic®
Eutectic Castolin

Green Technology Chromium-Free,
Metal-Cored, Wearfacing Wire

BoroTec 600 Cr Free

- Wearfacing wire with no hazardous chromium by-products
- Excellent single pass properties
- Provides dense, smooth deposits
- Superior wear resistance against standard chromium carbide wires
- 60-65 HRC maximum hardness

BoroTec 600

BoroTec 600 is a chromium-free, metal-cored, wearfacing wire specifically designed with boron carbides to combat wear by abrasion and erosion.

BoroTec 600's superior properties and versatile, welder-friendly performance increases productivity and profitability by offering a cost effective solution for parts reclamation and protection without excess exposure to harmful, chromium bearing fumes.

TECHNICAL DATA

Typical Values	
Hardness:	60-65 HRC
ASTM G65 Vol. Loss (average):	18 mm^3
Current polarity:	DCEP (DC+)
Deposit efficiency:	90%
Positions:	Flat & Horizontal

DIAMETER	AMPS	VOLTS	WIRE STICKOUT	SHIELDING GAS
0.045"	80-300	21-32	5/8 ± 1/8"	1) 90% Argon 10% CO_2 2) 98% Argon 2% O_2 3) 75% Argon 25% CO_2
1/16"	100-370	21-34	5/8 ± 1/8"	

Gas Flow: 35-40 Scfh

PROCEDURE FOR USE

Preparation: Remove any previous weld deposits or cracked and contaminated metal and any residues or oxides that remain.

Preheating: It is very important that the weld deposit not exceed 475°F in order to maintain its high wear resistance. For base materials that require preheating due to their carbon equivalent, it is recommended that the preheat temperature not exceed 250°F in order to avoid temperature excursions of the weldment above 475°F.

Note: Do not apply BoroTec 600 directly over 12-14% Mn steels as it will not bond!

Intermediate layer: On 12-14% manganese steels, an intermediate buffer layer is required using either EnDOtec® DO*68S wire or EutecTrode® 680. On hardenable and air-hardening steels, deposit intermediate layers with Xuper® 6868 XHD. To build up missing sections on low-alloy steels, TeroMatec® 2020 is recommended.

Welding Technique: Maintain a medium arc length with a stick-out distance around 5/8 to 3/4". Longer stick-outs and arcs increase deposition rate but will also often result in more spatter, overheating and an increased chance of defects.

For best results, hold the torch at 70-80° to the workpiece, welding downhand with a "pull" technique and a slight weave. Stringer bead or weaves may be used, however all puddles should be back-whipped and allowed to fill, especially at lower parameter levels, to prevent crater porosity.

TYPICAL APPLICATIONS

Wear protective coating for a wide range of steel components subject to severe abrasion or erosion by Mineral particles, Sand, Rocks and Gravel.

- Mixer shafts
- Impellers
- Buckets, shovels
- Transport screws
- Asphalt handling
- Excavator bucket teeth
- Conveyor chutes
- Sand pumps
- Concrete mixers
- Crushers

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