



The Ultimate Alloy to Guard Against
High Pressure Grinding Abrasion

TeroMatec®

0A 4811



- High deposition rate increases efficiency
- Optimum hardness in one pass!
- Outlasts chrome carbide by 4 times
- Virtually slag-free

TeroMatec® OA 4811

TeroMatec OA 4811 is formulated to be the ultimate abrasion resistant tungsten carbide wire, resisting the most severe wear problems. This flux-cored alloy resists both gouging and grinding abrasion. The high tungsten carbide content assures long life, out lasting chrome carbide by a factor of four.

TECHNICAL DATA

Typical Values	
Hardness:	62-68 HRC
Power Source Type:	Constant Voltage and Integrated Wire Drive
Current & Polarity:	DC (+) electrode positive

7/64" (2.8 mm)	Globular	Fine Globular
CURRENT RANGE	240-350 (LARGE PARTS)	200-250 (LIGHT PARTS)
VOLTAGE RANGE	27-32	26-29
STICK-OUT: CONTACT TIP	1.5" +/- 1/8" use short nozzle	1.5" +/- 1/8" use short nozzle

Note: parameter adjustments will be needed depending upon the size, weight, and shape of the part. For optimum wear resistance keep to the low end of the amperage and voltage ranges.

CAUTION: Although a 2-roll wire drive assembly will work the optimum for maintaining arc voltage stability and consistent and smooth wire feeding is a serrated 4-roll drive assembly. Smooth drive rolls are not recommended!

PROCEDURE FOR USE

Step 1: Remove all "old" cracked or spalled weld metal down to a sound base.

Step 2: 4811 is 1 pass maximum, it is often field practice to deposit a base-coat depending on the type of wear, severity, and the total amount of build-up required. *Note: When re-building 12-14% Mn steels use TeroMatec OA 3205 as a cushion layer, and for other alloy steels, EnDOTec DO*68S is recommended. A 2-pass minimum is advised when less-thick deposits are required.*

Step 3: Preheat the part to be hardfaced depending on its air hardenability potential and/or carbon level. For most constructional steels a nominal preheat of 150°F is suggested and for medium alloy steels, approximately 250°F. *Note: Do not heat high manganese steels such as Hadfield Castings!*

Step 4: After checking that the welding conditions are optimal by testing on scrap metal, position the gun head at a 70-80° angle and use a "push" technique for downhand welding. For fully automated welding, the wire should exit at about a 10° lagging angle from top dead center. Using this technique will assure a smooth and regular weld deposit profile with the optimum level of fusion. *Note: If welding is interrupted and the part cools to room temperature, you must reheat to the original preheat temperature. For hardenable steels, slow cooling with silicone blankets, vermiculite or other heat-retardant material is advised.*

Step 5: For most applications, finishing is not required. Grinding or machining can be used for more precise shaping.

TYPICAL APPLICATIONS

APPLICATIONS

Drill Bits - Bucket Teeth
Crushers
Earthmoving Equipment
Bucket Parts
Crusher Rolls
Conveyor Screws
Pug Mill Augers

INDUSTRY

Cement
Cement, Mining
Quarries, Mining
Quarries, Mining
Cement
Cement, Power
Cement, Power



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