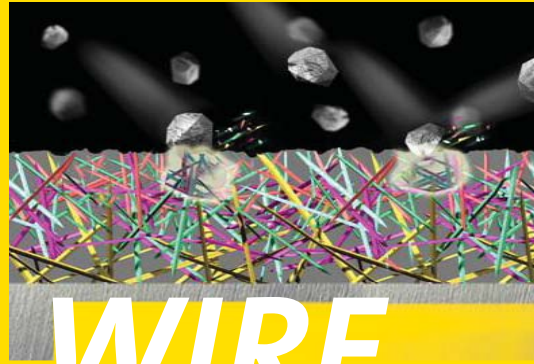


Premium Open Arc Wire with Superior Weldability for Combat
of Complex Wear

TeroMatec® OA 4625



WIRE

- High deposition rate reduces time needed to complete jobs
- Good crack resistance and corrosion resistance
- Ultra-fine carbides resist combined abrasion, impact and compressive wear



DESCRIPTION:

TeroMatec OA 4625 is formulated to have the ultimate resistance to abrasion when combined with impact and compression. It provides uniform, dense, porosity-free weld deposits. Excellent for use on large surfaces such as those found in the Cement, Mining, and dredging industry; particularly for use in dredger pumps.

It has an extremely fast deposition rate that is especially advantageous to heavy build-ups and offers 3 - 5 times the wear resistance of conventional hardfacing wires.

TECHNICAL DATA:

Typical Hardness: HRC 49-56 (single pass)

Polarity: DC (+) Electrode Positive

Power Source: Constant voltage and Integrated wire drive

TYPICAL APPLICATIONS & INDUSTRY:

APPLICATIONS

- Dump Truck Bodies
- Discharge Chutes - Skids
- Earthmoving Equipment
- Bucket Teeth - Bucket Edges
- Dredge Pumps - Impellers
- Conveyor Screws - Pug Mill Augers
- Debarker Drums

INDUSTRY

Disposal, Quarries
Cement, Mining
Earthmoving
Quarries, Mining
Dredging
Cement, Power
Pulp, Paper

OPEN ARC PARAMETERS

7/64" (2.8MM)	VOLTAGE	AMPERAGE	STICK-OUT
Globular	26-29	240-350 (Large parts)	1.5" ± 1/8" (Short nozzle)
Fine Globular	23-26	200-250 (Lighter parts)	1.5" ± 1/8" (Short nozzle)

Note: Parameter adjustments will be needed depending on the size, weight, and shape of the part to be welded.
For Optimum wear resistance keep to the low end of the amperage & voltage ranges

WELDING PROCEDURE & TECHNIQUE:

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!

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

Step 2:TeroMatec OA 4625 is a 3 to 4 pass maximum depending on the thickness of the deposit, 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 and/or carbon level. For most constructional steels a nominal preheat of 150°F is suggested and for medium alloy steels, ~250°F.

Note: Do not pre-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. To avoid weld degradation and inclusions, do not weave. Backwhip craters to reduce chances of cracking.

For fully automated welding such as hardfacing cylindrical parts, 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 being welded cools to room temperature, make sure to reheat to the original preheat temperature. For hardenable steels slow cooling is advised using silicone blankets, vermiculite, or other environmentally suitable heat-retardant material.

Step 5: For most applications, other than a superficial grind, finishing is not required. If some level of profiling is needed, grinding can be used for more precise shaping

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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