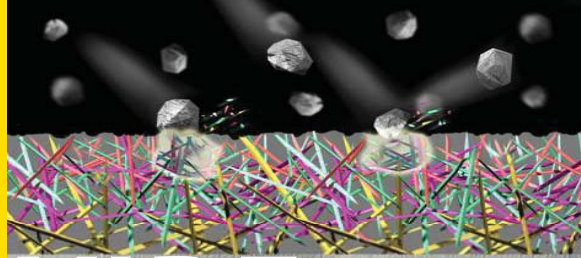


Premium Open Arc Wearfacing Wire

# TeroMatec® OA 4923



## WIRE

- High deposition rate reduces time needed to complete jobs
- Ultra-hard carbide in tough martensitic matrix enhances wear properties
- Extreme resistance to spalling
- Industry's choice for combatting abrasion, impact and pressure



## DESCRIPTION:

TeroMatec OA 4923 contains a fine dispersion of ultra-hard titanium carbides in a tough, martensitic matrix, providing excellent resistance to combined wear by abrasion, impact and/or pressure. This flux-cored alloy wire is specially developed for on-site maintenance and repair welding of thick, heavy components where faster weld deposition rates are desired. In addition, OA 4923 can be used for manual or fully automatic hardfacing operations.

## PROCEDURE FOR USE:

**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 4923 is 1 inch 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, TeroMatec OA 690 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 (65°C) is suggested and for medium alloy steels, ~250°F (120°C).

*Note: When preparing manganese steels, such as Hadfield castings, do not preheat!*

## TECHNICAL DATA:

Hardness 1 / 2 / 3 Passes: HRC 45 / HRC 50 / HRC 55

Typical carbide hardness: Knoop 2,500

Power Source Type: Constant voltage & Integrated Wire Drive  
Current & Polarity: DCEP (electrode positive)

Diameter (in) (mm)	CURRENT RANGE (A)		VOLTAGE RANGE (V)		WIRE EXTENSION (CONTACT TIP)*	
	Globular	Fine Globular	Globular	Fine Globular	Globular	Fine Globular
1/16" (1.6)	190-210	150-190	25-27	24-27	1/2" ± 1/8"	1/2" ± 1/8"
7/64" (2.8)	350-380	200-250	27-31	26-29	1.5" ± 1/8"	1.5" ± 1/8"

\* Use of short nozzle is recommended

## PROCEDURE FOR USE Cont.:

**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 such as hardfacing cement crusher rolls, 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.

## TYPICAL ANTI-WEAR APPLICATIONS & INDUSTRIES:

### APPLICATIONS

- Crusher Hammer - Clinker Crusher
- Secondary Crushers - Crusher Bars
- Earthmoving Equipment
- Bucket Teeth - Bucket Inside
- Crusher Rolls
- Dredge Pump Components
- Knives - Hammers - Shredders

### INDUSTRY

Cement  
Cement, Mining  
Quarries, Mining  
Quarries, Mining  
Cement  
Dredging  
Recycling, Refuse

*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.*

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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