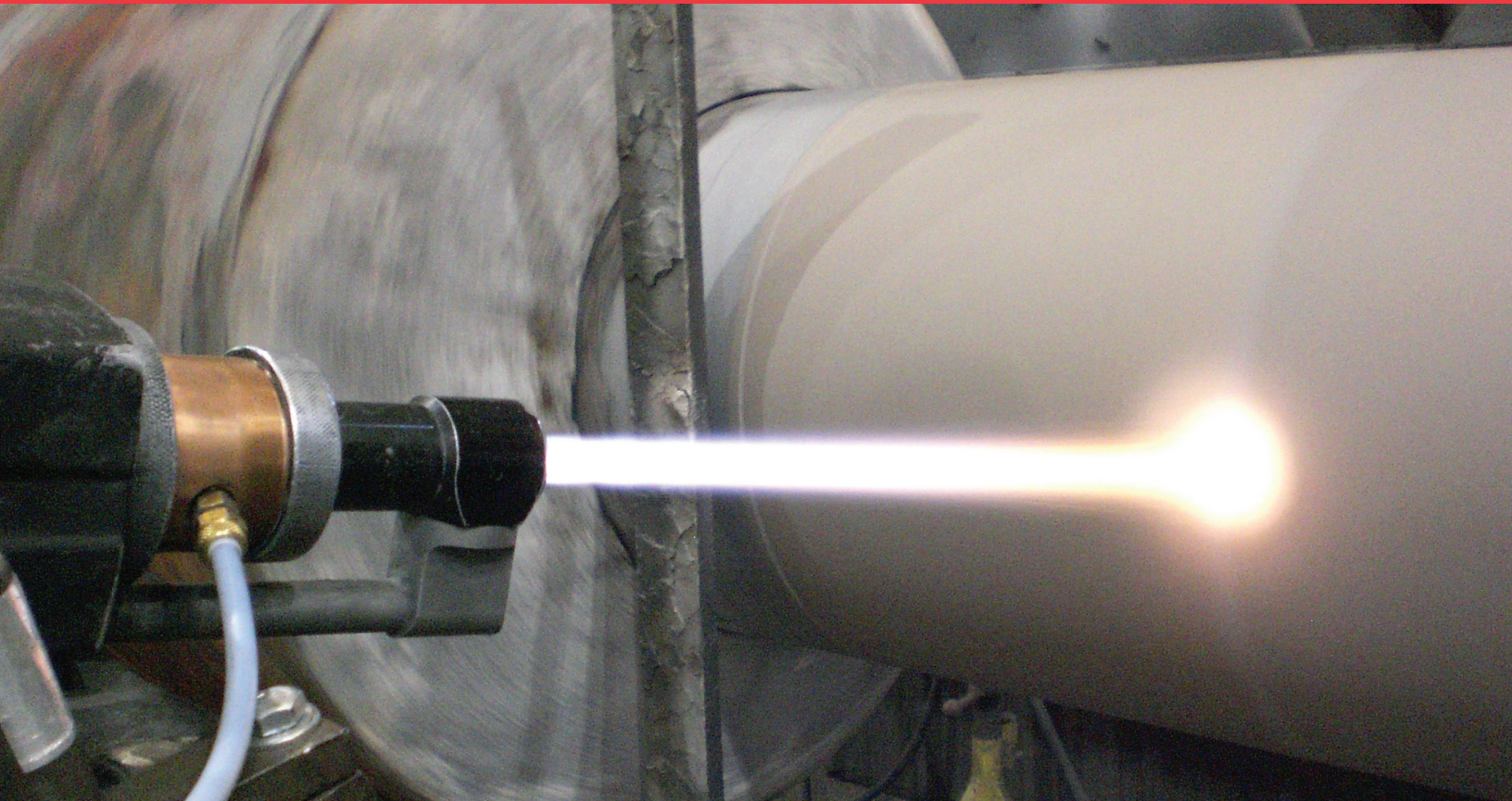


# WALLCARB™ POWDERS FOR HVOF / HVAF THERMAL SPRAY PROCESSES



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**WALLCOLMONOY**  
SURFACING ALLOYS

# FOR DENSE, HARD COATINGS WITH LOW POROSITY AND EXCELLENT WEAR AND CORROSION RESISTANCE

Wall Colmonoy's WallCarb™ HVOF Carbide Powders are specially formulated for thermal spray applications. WallCarb™ HVOF Carbide Powders deliver dense, hard coatings characterized by low porosity and superior wear and corrosion resistance. With their spherical, spray-dried, and sintered design, WallCarb™ HVOF Carbide Powders ensure high deposit efficiencies and consistent application parameters, leading to smooth coatings that minimize finishing and grinding times.

## WallCarb™ HVOF Powders

- WallCarb™ 86/10/4 – WC10Co4Cr
- WallCarb™ 90/10 – WC10Ni
- WallCarb™ 73/20/7 – WC20Cr7Ni
- WallCarb™ 75/25 – Cr<sub>3</sub>C<sub>2</sub> 25 (80Ni 20Cr)
- WallCarb™ 88/12 – WC12Co
- WallCarb™ 83/17 – WC17Co

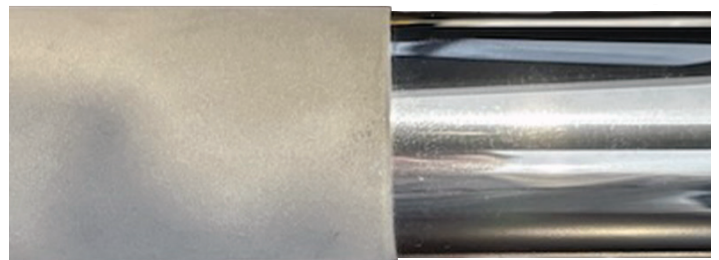
WallCarb™ HVOF Powders are available in 5 kg bottles for all grades except WallCarb™ 75/25, which is offered in 2.5 kg bottles. Typically provided with a particle size distribution of -45+15 µm, alternative distributions can be made available upon request.

WallCarb™ HVOF Powders are ideal for various key industries and applications, including:

- Oil & Gas: pump components, valves (gate and ball), downhole tools
- Mining: slurry pumps, rams, actuators, hydraulic rods, pistons
- Power Generation: gas turbines, nozzles, blades, exhaust fans
- Plastic: extruders & screws
- Pulp & Paper: roll covers, inking rolls, calendar rolls press rolls
- Steel: guides, rolls, forming dies
- Automotive: exhaust valves, cylinder bores, piston rings

For more information visit

[wallcolmonoy.com/wallcarb-powders](http://wallcolmonoy.com/wallcarb-powders)

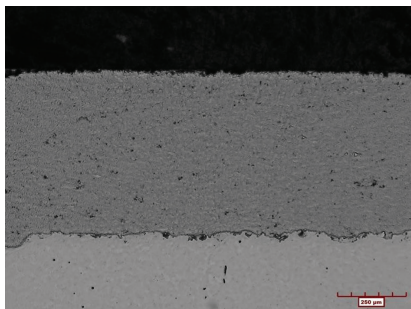


*WallCarb™ 86/10/4 HVOF powder on a 2" diameter bar showing as sprayed and polished conditions.*



### WallCarb™ 86/10/4

#### Most Versatile



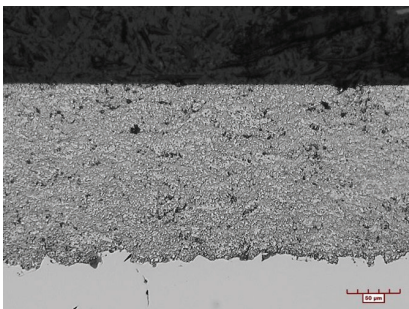
Superior wear, corrosion, and erosion resistance up to 450°C (840°F)

**Coating Hardness:** >1,000 HV

**Applications:** Seal areas on shafts, ball and gate valves, hydraulic rams and pump seals, paper rolls, fan blades, hard chrome replacement

### WallCarb™ 90/10

#### Superior Corrosion Resistance



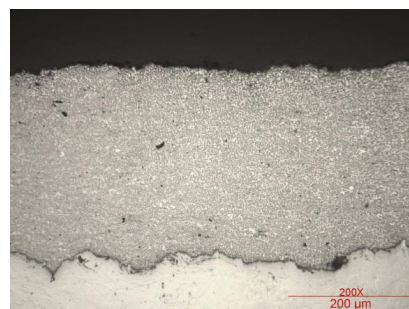
Resists fretting, abrasion, and wear in dry environments

**Coating Hardness:** >1,000 HV

**Applications:** Ball or gate valves where oxidizing environments are present, oil and gas drilling applications where high hardness and good corrosion are required, parts exposed to salt-sea water, pump components, other erosion, abrasion and sliding wear protection

### WallCarb™ 73/20/7

#### Ductile Flexibility



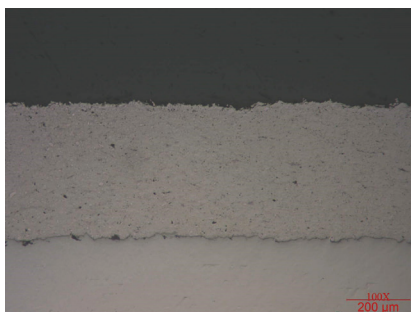
Fracture, wear, and corrosion resistance up to 730°C (1350°F), with greater ductility than tungsten carbide cobalt

**Coating Hardness:** >1,000 HV

**Applications:** Seal areas on shafts, hydraulic rams, extrusion screws, mud motor rotors, oil field applications, chemical processing equipment

### WallCarb™ 75/25

#### Alternative to Chrome Plating



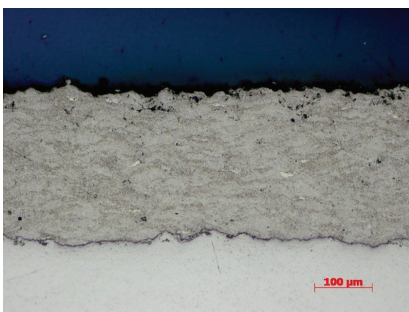
Wear and corrosion resistance up to 870°C (1600°F), with superior protection in chloride, acidic, and alkaline environments

**Coating Hardness:** >900 HV

**Applications:** Hydraulic cylinders, piston rods in earth-moving equipment, furnace rolls in metal production, valves used in chemical processing, ball valves, turbine blades

### WallCarb™ 88/12

#### Abrasive & Erosive Wear



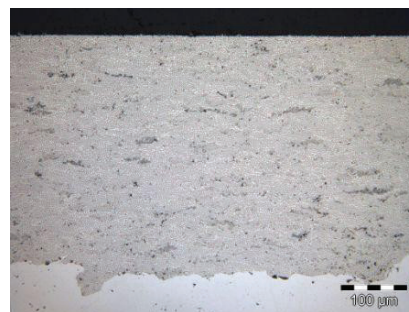
Resistance to wear, being harder than 83WC-17Co, withstanding abrasion and fretting up to 480°C (900°F)

**Coating Hardness:** >1,000 HV

**Applications:** Steel rolls & paper rolls, pump housings, impeller shafts, downhole tools, aircraft flap tracks, conveyor screws, corrugating rolls & sink rolls, wire drawing equipment, exhaust fans, compressor blades

### WallCarb™ 83/17

#### Superior Fretting Resistance



Superior toughness, fretting, and wear resistance up to 500°C (930°F), a hard chrome alternative

**Coating Hardness:** >1,000 HV

**Applications:** Pump seals, sucker rod couplings, rotary compressor shafts, piston rods, reciprocating plungers, landing gear, turbine shafts, turbine blades, various oil field apparatus

#### **WORLD HEADQUARTERS**

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Tel 248-585-6400

Web [wallcolmonoy.com](http://wallcolmonoy.com) | Email [wcc@wallcolmonoy.com](mailto:wcc@wallcolmonoy.com)

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**WALLCOLMONOY**

**Wall Colmonoy. Making Metals Work Harder Since 1938.**

MADISON HEIGHTS | LOS LUNAS | CINCINNATI | OKLAHOMA CITY | CANADA | WALES (U.K.) | SUZHOU (CHINA)

*The information provided herein is given as a guideline to follow. It is the responsibility of the end user to establish the process information most suitable for their specific application(s). Wall Colmonoy Corporation (USA) assumes no responsibility for failure due to misuse or improper application of this product, or for any incidental damages arising out of the use of this material.*