



## **WEAR PRODUCTS**

**CANADIAN INNOVATIVE MATERIALS**

## CIM Corporation

Canadian Innovative Materials (CIM) is a global leader in wear solutions, specializing in advanced materials engineered to withstand extreme abrasion in mining, energy, and construction industries. Our innovative technologies—including Tungsten Carbide Overlay (WCO), High Chrome White Iron (HCWI), Silicon Carbide Ceramic (SiC), and Chrome Carbide Overlay (CCO)—provide superior wear protection, enhancing equipment performance and longevity. CIM also offers proprietary products such as TungTough™, TungHard™, TitanCast™, CIMPlate™, CIMSic™, excel in abrasive environments, ensuring exceptional durability in demanding conditions.

### GET ATTACHMENT

- Shovel Tooth
- Ripper Tooth
- Dozer Track Shoe
- Blade and Cutting Edge

### CRUSHER SYSTEM

- Crusher Tooth
- Beam Cap
- Pulley Cleaner Knife
- Ring Cap

### WEAR LINER

- Bucket Liner
- Truck Bed Liner
- Hopper Chute Liner
- Pump Box Liner
- Surge Bin Liner

### WEAR SPOOL

- Wear Spool WCO
- Wear Spool Rubber
- Wear Spool CWI
- Cyclone

### SLURRY PUMP / VALVE / WEAR RING

- Wear Ring
- Slurry Pump
- Slurry Valve

### WEAR BLOCK

- CWI Button
- Shed Deck
- Rotary Wet Screen



# The Global Leader in Wear Solutions

## PRODUCT LIST

### GET ATTACHMENT



Shovel Tooth



Ripper Tooth



Dozer Track Shoe



Blade and Cutting Edge

### CRUSHER SYSTEM



Crusher Tooth



Beam Cap

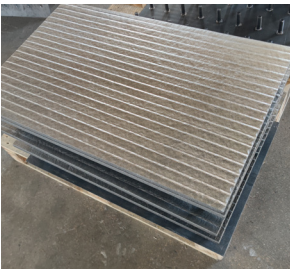


Pulley Cleaner Knife

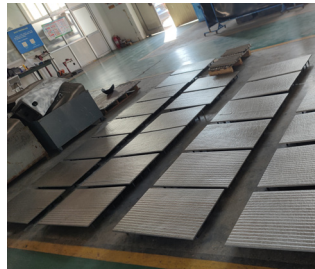


Ring Cap

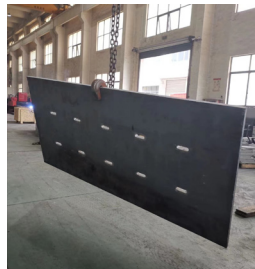
### WEAR LINER



Bucket Liner



Truck Bed Liner



Hopper Chute Liner



Pump Box Liner



Surge Bin Liner





# The Global Leader in Wear Solutions

## PRODUCT LIST

### WEAR SPOOL



Wear Spool WCO    Wear Spool Rubber    Wear Spool CWI    Cyclone

### WEAR RING



Wear Ring

### SLURRY PUMP



Slurry Pump

### SLURRY VALVE



Slurry Valve

### WEAR BLOCK



CWI Button

Shed Deck

Rotary Wet Screen



# TUNGSTEN CARBIDE OVERLAY (WCO)

## Introduction:

CIM has developed proprietary TungTough™ and TungHard™ Tungsten Carbide Overlay (WCO) applied using Plasma Transferred Arc (PTA) welding process. The WCO hardfacing overlays contain 60-70% tungsten carbide within NiBSi or NiCrBSi matrix, offering an optimal balance of exceptional wear resistance and toughness. This unique combination makes WCO the preferred choice for extreme wear applications.

TungTough™ is designed for high-impact applications, consisting of 60-70 wt % angular eutectic tungsten carbide within a NiBSi matrix. Hardness: WC (2300-2600 HV), Matrix (380-460HV); Bulk Hardness: 52 HRC.

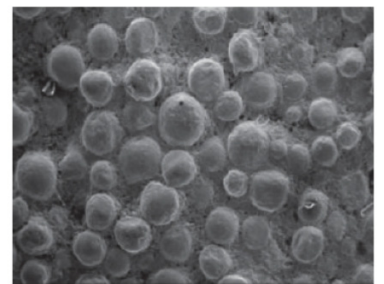
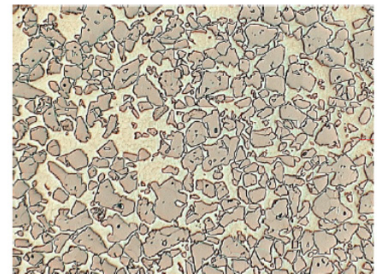
TungHard™ is engineered for low-stress erosion applications, containing 70-75 wt % spherical eutectic tungsten carbide within a NiCrBSi matrix. Hardness: WC (2700-2900 HV), Matrix (510-590 HV); Bulk Hardness: 65 HRC.

## Key Benefits:

- Superior Wear Resistance: product's lifespan can be extended up to 5 times
- Combination of high hardness and toughness.
- Reduce downtime, maintenance cost and inventory.

## Application:

WCO can be built up to 1" thick with minimal carbide decomposition. The CIM WCO is widely used in shovel tooth, ripper tooth, crusher tooth, dozer blade and cutting edge, wear spool, slurry valve and wear ring, among other applications.





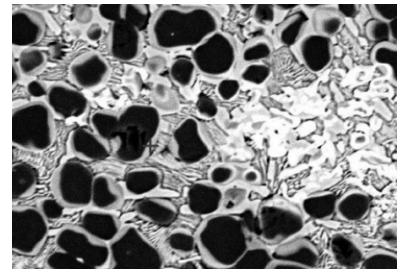


### Introduction:

TitanCast™ is an exclusive CIM product renowned for its exceptional toughness, durability, and wear resistance. With titanium carbide metallurgically cast into Chrome White Iron (CWI), it combines the strength of the base metal with the hardness of the carbides, making it ideal for high-impact applications.

### Key Benefits:

- Enhanced Wear Performance: 1-2 times better than conventional ASTM A532 IIIA chrome white iron.
- Lighter Weight: 20% lighter compared to traditional chrome white iron.
- Exceptional in high - impact applications.



### Application:

TitanCast™ is ideal for use in high-impact applications. These include crusher tooth, sizer tip, beam cap, grinder hammer, slurry pump components, wear spool liner, dozer track shoe, wear block, and cyclone.



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# CHROME CARBIDE OVERLAY (CCO)

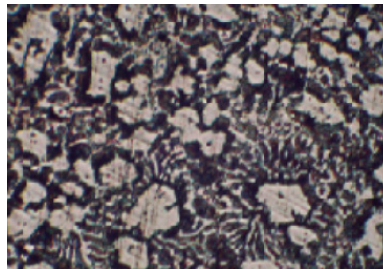


## Introduction:

CIMPlate™ is a composite Chrome Carbide Overlay (CCO) manufactured using a specialized automatic welding process (modified sub-arc welding). A proprietary post-weld heat treatment ensures a smooth surface and free of welding beads and check cracks. CIM CCO overlay can be produced up to 25 mm thick in a single pass.

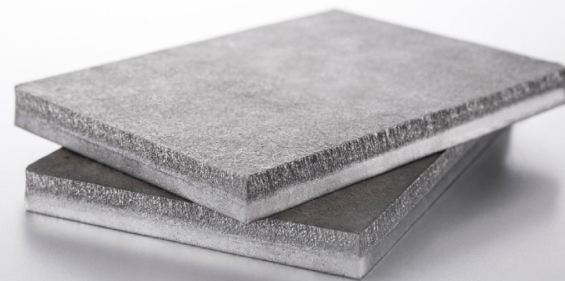
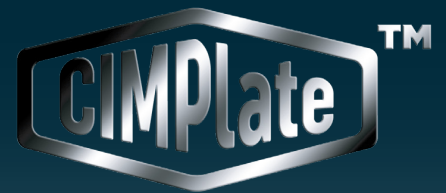
## Key Benefits:

- High hardness and superior abrasion resistance
- Smooth surface and free of solidification cracks.
- Single-Path Deposition: Achieves thicknesses from 6 mm to 25 mm in one pass, improving efficiency.
- Versatile Fabrication: Can be cut into any shape using flame cutting, PTA, or laser.



## Applications:

CIMPlate™ is ideal for high-wear surface, including pump box liner, hopper/chute liner, shovel bucket liner, truck bed liner and surge bin liner.



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