

IntegriClad™ HARDFACED WEAR SOLUTIONS

Engineered Tungsten Carbide Hardfacing
for Severe Wear



Finished
Wear Components



New Parts



Refurbishment

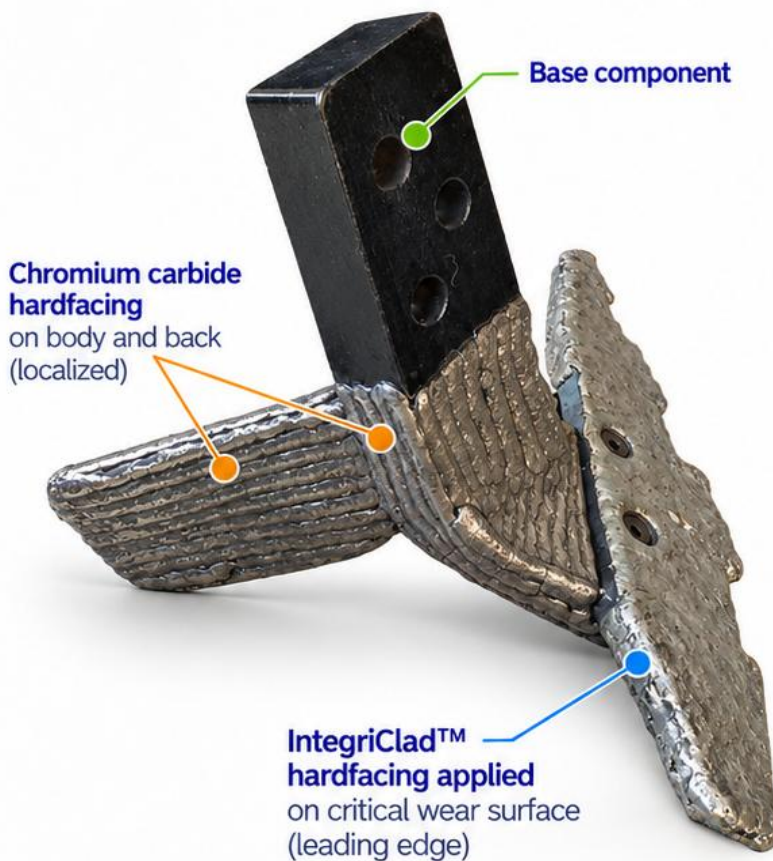


Engineered Wear Protection Where It Matters Most

IntegriMat provides finished wear components protected with IntegriClad™ tungsten carbide hardfacing for severe abrasion, erosion and combined wear conditions.

Rather than protecting the entire component uniformly, hardfacing can be strategically applied to critical wear zones such as leading edges, contact surfaces, corners and other areas exposed to accelerated material loss. This allows the wear protection to be engineered around the component geometry and actual service conditions.

Solutions can be supplied as new hardfaced components or developed for the refurbishment and life extension of existing parts.



Localized Wear Protection

Hardfacing concentrated on critical surfaces and high-wear zones.



Complex Geometries

Suitable for edges, curved surfaces, irregular profiles and difficult-to-protect areas.



Application-Specific Protection

Tungsten carbide system, hardfacing location and build-up are selected according to the wear mechanism and operating conditions.



New Parts & Refurbishment

Solutions for newly manufactured components as well as restoration and protection of worn parts.



From Wear Problem to Finished Component


01

Component Review

Drawings, dimensions, photos or existing component


02

Wear Assessment

Wear mechanism, critical areas and operating conditions


03

Solution Engineering

Hardfacing material, protected zones and cladding configuration


04

Finished Wear Component

New manufactured part or refurbished component ready for service



IntegriMat

IntegriMat Inc.

Surface Engineering Solutions Division

IntegriClad™ Wear Component Portfolio

Engineered hardfaced components for severe wear across mining, drilling, material processing and industrial applications.



Crusher & Mining Components

Crusher parts • Hammers • Wear blocks • Wear pads



Screws & Augers

Conveyor screws • Feed screws • Auger flights • Extraction screws



Mixing & Processing Components

Mixer blades • Paddles • Mixing arms • Scrapers • Propellers



Drilling & Downhole Components

Stabilizers • Drilling tools • Wear pads • Downhole components



Ground-Engaging & Excavation Parts

Bucket teeth • Cutter teeth • Cutting edges • Excavation tools



Custom Wear Components

Special geometries • Localized protection • New parts & refurbishment

From standard wear components to application-specific designs, IntegriMat provides finished **IntegriClad™** hardfaced parts engineered around the **actual wear zone**.



IntegriClad™ Tungsten Carbide Cladding Applications

Typical Components & Wear Areas

IntegriClad™ tungsten carbide cladding can be selectively applied to critical wear areas on new or refurbished components exposed to severe abrasion, erosion and combined wear. The examples below illustrate typical industrial applications; cladding configuration is engineered according to component geometry, substrate and service conditions.

1



Mining & Mineral Processing

Mining and mineral-processing equipment is continuously exposed to abrasive ore, rock and mineral particles and impact. IntegriClad™ can be applied selectively to high-wear areas without replacing the complete component.

Typical components include:

- Crusher components
- Crusher hammers
- Wear blocks & wear pads
- Drill bits
- Mining drill stabilizers
- Ground-engaging tools
- Bucket teeth
- Bucket-wheel teeth
- Excavator teeth
- Dredge cutter components
- Scraper blades & edges
- Conveyor screws
- Feed screws
- Auger flights
- Hoppers & discharge components
- Mixer blades & paddles
- Slurry-handling components

2



Oil & Gas and Drilling

Drilling and downhole equipment can experience severe combinations of abrasion, erosion and contact wear. Tungsten carbide cladding provides localized protection of critical surfaces while retaining the geometry and functionality of the underlying component.

Typical components include:

- Drill stabilizers
- Drill bits and drilling tools
- Downhole tools
- Wear pads
- Bearing surfaces
- Mandrels
- Rotary-steerable components
- Pump components
- Plungers
- Frac components
- Coil-tubing wear components

3



Tunneling & Underground Excavation

Tunnel boring and underground excavation equipment encounters highly abrasive rock and soil under continuous mechanical loading.

Typical components include:

- TBM conveyor screws
- Extraction screws
- Screw flights
- Cutter-head wear areas
- Wear pads
- Excavation tools
- Blades and teeth
- Trencher components
- Augers
- Other high-wear components

4



Construction & Earthmoving

Construction and earthmoving tools experience severe abrasive contact with soil, sand, aggregate and rock.

Typical components include:

- Excavator bucket teeth
- Loader bucket teeth
- Ground-engaging tools
- Cutting edges
- Scraper edges
- Trencher components
- Augers
- Excavation blades
- Crusher components
- Road-construction wear components

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Dredging & Slurry Handling

Continuous contact with sand, gravel and mineral-rich slurry can produce a combination of severe abrasion and erosion.

Typical components include:

- Dredge cutter teeth
- Cutter-head components
- Pump wear components
- Impeller wear areas
- Scrapers
- Suction-system wear areas
- Agitator components
- Slurry-handling components

6



Steel & Metal Processing

Wear occurs throughout steel production and metal-processing equipment through abrasion, sliding contact, scale and material movement.

Typical components include:

- Guide components
- Wear plates
- Material guides
- Scraper components
- Fan wear areas
- Handling-system wear components



IntegriClad™ Tungsten Carbide Cladding Applications

Typical Components & Wear Areas – Continued

IntegriClad™ tungsten carbide cladding can be selectively applied to critical wear areas on new or refurbished components exposed to severe abrasion, erosion and combined wear. The examples below illustrate typical industrial applications; cladding configuration is engineered according to component geometry, substrate and service conditions.

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Mixing & Material Processing

Mixers processing mineral concentrates, concrete, abrasive slurries, sand and other particulate materials are particularly suitable for localized tungsten carbide cladding. The cladding can be concentrated on the leading edge and other high-wear zones rather than covering the entire component.

Typical components include:

- Mixer blades
- Mixer paddles
- Mixing arms
- Propellers
- Scraper blades
- Scraper edges
- Agitator components
- Pug-mill paddles
- Wet-mixer paddles
- Mixing screws
- High-wear leading edges

8



Brick, Tile & Ceramic Manufacturing

Highly abrasive clay, chamotte and ceramic raw materials create severe sliding wear in forming, mixing and material-preparation equipment.

Typical components include:

- Auger blades
- Extruder screws
- Pug-mill paddles
- Mixer paddles
- Propellers
- Mill-roll scrapers
- Filter-mixer scrapers
- Extruder screens
- Die cores
- Die combs
- Crusher plates
- Kibbler-roll teeth
- Bucket teeth

9



Foundry & Sand Processing

Sand preparation and reclamation systems contain highly abrasive silica and molding materials that can rapidly wear conventional steel components.

Typical components include:

- Sand mixer blades
- Mixer knives
- Mixer paddles
- Sand-conveying paddles
- Scrapers
- Cutter blades
- Feeder components
- Corner pieces
- Mold drills
- Sand-processing wear components

10



Agriculture

Soil-engaging agricultural components can experience rapid abrasive wear, particularly in sandy and mineral-rich soils.

Typical components include:

- Tillage tools
- Cultivator points
- Plough components
- Soil-engaging blades
- Augers
- Feed screws
- Scraper components
- Wear edges

11



Recycling & Waste Processing

Recycling and waste-processing equipment encounters abrasive particles, contaminants and mixed feed materials that cause accelerated wear.

Typical components include:

- Shredder wear components
- Crusher components
- Scraper blades
- Conveyor screws
- Feed screws
- Mixer blades
- Material-handling components
- Wear edges



Beyond Standard Components

IntegriClad™ hardfacing can be engineered for custom components, complex geometries and localized wear zones. New components and refurbishment solutions can be developed from drawings, dimensions, photographs or existing parts.

IntegriClad™ From Drawing to Finished Component

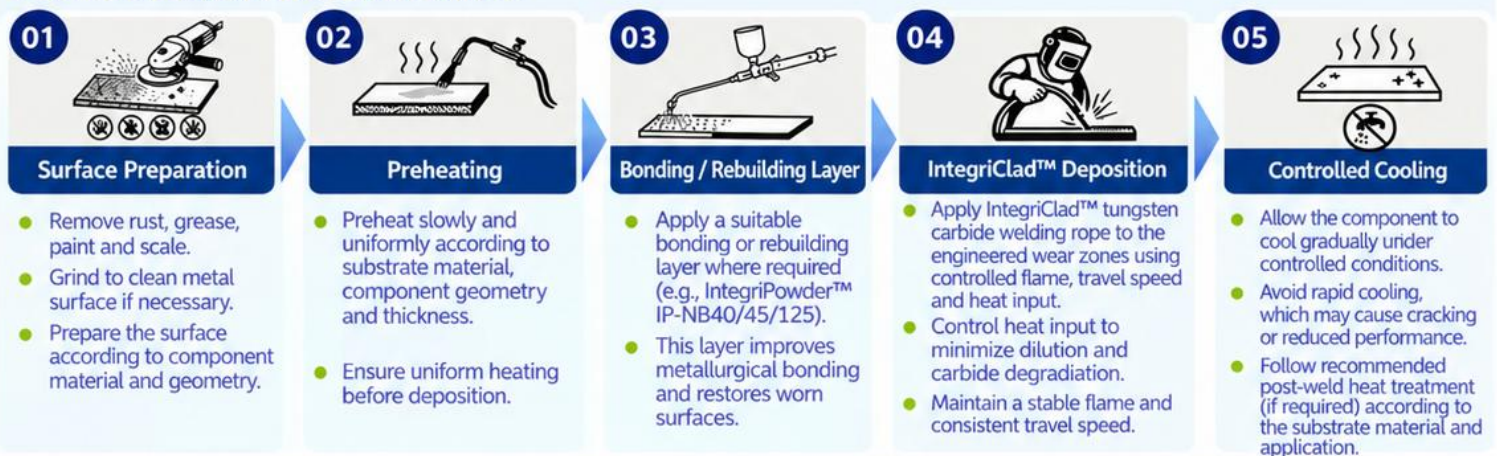
Your Engineering and Supply Partner for Tungsten Carbide Hardfaced Components

IntegriMat provides complete solutions for new and refurbished components using IntegriClad™ tungsten carbide welding rope. We work with your drawings, dimensions, photographs or existing parts to deliver engineered, hardfaced components ready for service.



IntegriClad™ Hardfacing Production Process

Our components are manufactured through a controlled hardfacing process to ensure strong metallurgical bonding, consistent quality and reliable performance.





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Surface Engineering Solutions Division

IntegriClad™

Engineered Wear Protection for Demanding Applications

IntegriMat delivers new and refurbished components with IntegriClad™ tungsten carbide hardfacing, engineered for severe abrasion, erosion and combined wear in the world's toughest environments.



Proven Wear Performance

- Tungsten carbide hardfacing for severe wear
- Designed to extend service life
- Reduced downtime and maintenance cost
- Reliable performance in abrasive and erosive conditions



Custom-Engineered Solutions

- Designed for your component, wear zones and operating conditions
- New components or refurbishment
- Various IntegriClad™ systems and configurations
- Support from concept to delivery

NEW PARTS REFURBISHMENT CUSTOM SOLUTIONS



All Industries

Components for severe abrasion, erosion and combined wear



New or Refurbished

Extend service life and restore worn components



Engineered Solutions

Hardfacing configurations optimized for your application



Reliable Performance

Proven in demanding environments



Technical Support

From initial inquiry to after-sales support



Wide Range of Industries

- Mining and mineral processing
- Oil & gas and drilling
- Tunneling and underground excavation
- Construction and earthmoving
- Dredging and slurry handling
- Steel and metal processing
- Mixing, ceramics, foundry, agriculture
- Recycling and waste processing



Quality and Reliability

- Engineered hardfacing process
- Consistent and reproducible quality
- Inspection and dimensional control
- Solutions for both OEM and aftermarket
- Technical support and application advice



Your Long-Term Partner

- Technical expertise in wear protection
- Flexible supply for single parts or volume orders
- Support for custom and complex components
- Committed to your success



Global Supply

- Serving customers in Canada and worldwide
- Support for distributors, OEMs and end users
- Reliable packaging and international shipping
- Responsive and technical customer service

One Component. Engineered for Longer Service Life.

Engineered with IntegriClad™ tungsten carbide hardfacing.



Reduce
Downtime



Lower
Maintenance Cost



Increase
Service Life



More
Sustainable
Operations

Contact IntegriMat

Let's discuss your application.
We are ready to support your next project.



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