

FOOTHILLS BI METALLIC PLATES



Extend the life of your wear plates and reduce downtime with Foothills Bi Metallic plates

Mild steel plate with a high percentage of chromium carbide weld overlay making it much harder and up to **10 x longer lasting**



Typical applications of Bimetallic Wear Plates include wear protection for abrasive surfaces such as:

- > Dump truck linings
- > Chute Linings
- > Dump & Crusher Hoppers
- > Crusher Chutes/Bars
- > Feeders
- > Loaders
- > Dozer blade shovels
- > Transport bins
- > Dragline buckets & Shovels
- > Excavator liners
- > Wear Aprons/Pads
- > Dump Hoppers & Crusher Hoppers
- > Surge Bin & Bucket & Trough Liners
- > Rock Box & Hopper Edges/Liners
- > Rolling Mill Guides
- > Jaw Crusher Check Plates
- > Skid Plates
- > Skip & Loader & Truck Bed Liners
- > Lip & Adaptor Protectors
- > Screen Plates
- > Coal Transfer & Tripper Chutes

Extend the life of your equipment with a Foothills Bi Metallic Plate

FEATURES

- >> Cr: 24-32% (chromium carbide)
- >> 55-62HRC
- >> 3mm deflection over the 1000mm of the length of the plate making it very flat
- >> Abrasion resistant
- >> Mild steel plate with chromium carbide weld overlay applied
- >> Tested to ASTM G65-16 Method A

Because our Bi Metallic plate is manufactured with a Mild Steel plate base you will find that it is very easy to work with on the reverse side.

The Chromium Carbide weld overlay on the wear side increases the hardness and impact resistance which means that your wear plates last longer, reducing your ongoing maintenance schedule and costs as a result.

Our plates come in a variety of thicknesses to suit your application and can be customized upon request. We can control the thickness of the layer to reach the overall performance requirements, no matter what you are trying to achieve.



THICKNESS AND SIZES OFFERED:

Wear Plate Thickness

Size (mm)	Basis Plate Thickness (mm)	Overlay Thickness (mm)	Total Thickness (mm)
2100x3500	3	3	6
2100x3500	4	4	8
2100x3500	5	5	10
2100x3500	6	4	10
2100x3500	6	5	11
2100x3500	6	6	12
2100x3500	8	4	12
2100x3500	8	6	14
2100x3500	8	8	16
2100x3500	10	6	16
2100x3500	10	8	18
2100x3500	10	10	20
2100x3500	10	15	25
2100x3500	12	17	29
2100x3500	30	25	55

FAST FACTS

Weld deposits are high % chromium carbide making the plate much harder than most other wear part materials

Bi metallic matrix make the wear plate harder on the wear side whilst maintain weld ability, work ability on the reverse side

Specific overlay vs base material thickness to reach optimum overall performance requirements

BENEFITS

- Reduced downtime on site
- Longer wear life for you wear parts
- Reduced maintenance costs
- Out lasts other steel wear plates by up to 10 times
- Easy to install because of the mild steel base so it is easy to weld
- Comes in standard plate sizes of 2100m x 3500m
- Can be cut and formed to any custom size



Our Bi Metallic plates have been manufactured with our automated welding equipment. Using 4 Open Arc Welders and 2 Submerged Arc Welders, our capacity is over 30000 m²/ year.

We have two types of Bi Metallic Plates on offer:

- >> Bimetallic Chromium Carbide Overlay Wear Resistant Plate made by Submerged-arc technology
- >> Bimetallic Chromium Carbide Overlay Wear Resistant Plate made by Open-arc technology



Foothills Canada gets great results with Bi Metallic plates

TECHNICAL INFO

Submerged arc welding is a welding method using arc as heat source. Welding arc is in a layer of granular flux can be melted under the cover of electric arc burning, not exposed.

The Current density of this process is very high, Welding bead can adjust according to thickness.

CHEMICAL COMPOSITION OF THE WELD OVERLAY:

- >> C:2.0-5.0%;Mn:1.0-3.0%;Cr:24-32%; Fe and others: balance.
- >> Actual chemistry will vary with overlay thickness.

MACRO-HARDNESS:

55-62HRC

- >> The hardness is a composite of hard chromium carbides and tough austenitic matrix.
- >> The hardness can vary depending on the thickness of the overlay.

IMPACT RESISTANCE:

- >> Will withstand continuous moderate impact.
- >> Custom overlays can be formulated to withstand higher impact.