Maximise your wear protection

PROTECT YOUR GEAR FROM WEAR AND REDUCE MAINTENANCE COSTS WITH THE HARDEST, TOUGHEST AND LONGEST LASTING OVERLAY PLATE AROUND.

This super hard wearing plate features a chromium carbide matrix that is welded onto a mild steel backing plate.

The large amount of hard chromium carbides allows this plate to thrive in extreme abrasion and impact applications, providing the longest possible wear protection.

The hardiness of this overlay plate is a composite of hard chromium carbides and tough, austenitic matrix. A variety of substrates such as stainless steel, nickel alloys and quenched and tempered steels, are used in the manufacturing process of this plate.

This plate can be easily formed to suit curves and contours. Welded studs or countersunk inserts can be fitted so plates become easily replaceable.

Made to the highest quality and performance standards, this plate is the only choice for maximising your wear protection.

Chromium
Mild Steel

APPLICATIONS:

- **Chute liners**
- **Bin & hopper liners**
- **Loader Bucket Liners**
- **Truck Deck Liners**
- **Dozer Blade Liners**
- **Crusher Plates**
- **Recycling Plants**
- **Wear Strips**

CHROMIUM CARBIDE OVERLAY PLATE

RANGE OF SIZES & TECHNICAL SPECIFICATIONS

Part No	Chromium Thickness	Mild Steel Thickness	Total Plate Thickness	Hardness (HRC)	Chemical Composition			
					C (%)	Si (%)	Mn (%)	Cr (%)
5_ON_6_VIBO	5mm	6mm	11mm	57-62	4.5	1.45	1.5	35
7_ON_6_VIBO	7mm	6mm	13mm	58-63	4.5	1.45	1.5	35
7_ON_8_VIBO	7mm	8mm	15mm	58-63	4.5	1.45	1.5	35
8_ON_10_VIBO	8mm	10mm	18mm	58-65	4.5	1.45	1.5	35
10_ON_10_VIBO	10mm	10mm	20mm	58-65	4.5	1.45	1.5	35
12_ON_12_VIBO	12mm	12mm	24mm	58-65	4.5	1.45	1.5	35

- **Abrasion Resistance:** The wear life of this plate is up to 30x longer than mild steel and up to 6x longer than G450 wear steel
- **Impact Resistance:** This plate can withstand a moderate level of continuous impact as long as it is fully supported underneath
- **Temperature Range:** This plate is designed to withstand heat up to 600 deg C
- **Characteristics:** The overlay surface of this plate consists of a series of weld beads with numerous hairline cracks. These cracks are a natural stress relief effect and are beneficial to the material. These cracks do not affect the performance of the plate.
- **Full sheet size:** Chromium Carbide plate is available in full sheets 3500mm x 2100mm or cut to any shape & size

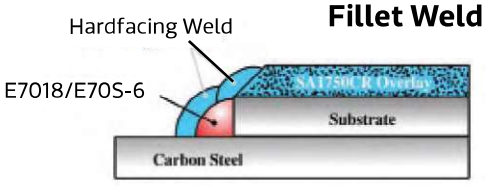
CHROMIUM CARBIDE OVERLAY PLATE

FABRICATION INFORMATION

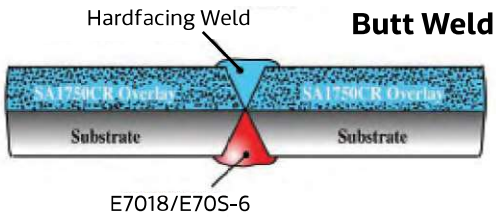
- **Cutting:** Chromium Carbide plate can be cut by using plasma, air arc or abrasive disc. Cutting should be done on the mild steel side to avoid contaminating the mild steel with chromium particles which can cause a brittle weld.
- **Cold Bending:** This plate can be formed easily using a press brake or rollers. Relief cracks are normal in the hard surface when forming. Caution when forming along the same direction as the overlay weld seams, structural cracking may occur when pressing a tight radius. Refer to the Rolling Limits table below;
- **Plate Grain:** Where possible, always have direction of the overlay weld seams (plate grain) running across the flow of the moving material. This helps to get even wear and prevents washing between the weld seams.
- **Welding & Fitting:** This overaly plate can be using E70S-6 mig wire or E7018 electrodes or similar grades for welding mild steel. All weld seams, plug weld holes, bolt holes and other joints exposed to wear, should be protected by a weld cap of hard facing.
- **Bolt-on Options:** Threaded studs can be fitted to the mild steel side, or pre-machined countersunk inserts can be welded in to the plate to suit cap screws. These fastening methods ensure quick change overs when replacing them.

Radius Rolling Limits		
Thickness	**Chromium Outside**	**Chromium Inside**
10-11mm	600mm OD	500mm OD
13-15mm	700mm OD	600mm OD
18-20mm	850mm OD	650mm OD
24mm	900mm OD	750mm OD

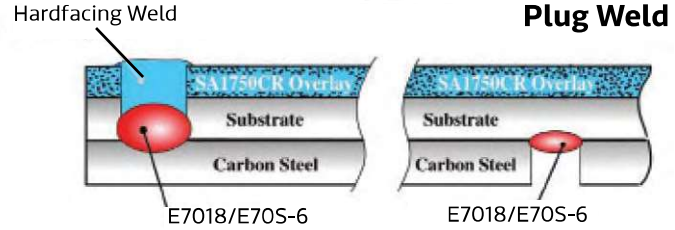
Fillet Weld



Butt Weld



Plug Weld



Threaded Stud

Countersunk Insert

CHROMIUM CARBIDE APPLICATIONS

Dozer Blade Liners

Truck Deck Liners

Excavator Bucket Liners

Loader Bucket Liners

CHROMIUM CARBIDE APPLICATIONS

POWER INDUSTRY APPLICATIONS


Frozen Coal Cracker


Cyclone Burner Door


Square to Round Transition


Journal Liner

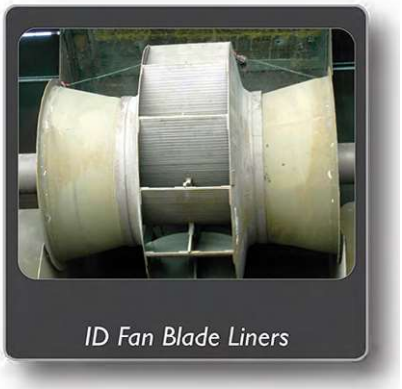

T-Fired Burner Barrel


Crusher Screen Plate

CEMENT INDUSTRY APPLICATIONS


Stationary Classifier Blades


Slurry Transport Pipes


ID Fan Blade Liners


Raw Mill Nozzle


Augers


Raw Mill Classifier Cone

CHROMIUM CARBIDE APPLICATIONS

QUARRY AND MINING INDUSTRY APPLICATIONS


Truck Bed Liner Systems


Dozer Blade Liner Systems


Shovel Bucket Liners


Loader Bucket Liners


Raw Material Chute


Raw Material Funnel

STEEL INDUSTRY APPLICATIONS


Coke Injection Line Elbows


High Blast Furnace Coke Screens


Reverse Fan Box


Dust Handling System


Alloy Hopper


Replaceable ID Fan Housing Liners

Case study - Fulton Hogan

INCREASED BUCKET LIFE, REDUCED DOWNTIME & MAINTENANCE COSTS

Fulton Hogan specialises in building and maintaining transport and civil infrastructure so our communities can operate safely and efficiently.

SITUATION:
Fulton Hogan Christchurch operates a large fleet of wheel loaders at its 4 fixed quarry sites and 7 portable plants.
The aggregate is highly abrasive causing wear and damage to the loader buckets if they are not adequately protected. Fulton Hogan needed a long lasting wear liner kit to protect the inside of their buckets from wear.

RESPONSE:
West-Trak worked closely with Fulton Hogan to understand their needs and provide the ultimate bucket liner solution. We used Chromium Carbide Overlay Plate which outlasts Abrasion Resistant steel by up to 5 times, resulting in less downtime and maintenance costs.

OUTCOME:
The below benefits were acheived

- **4 to 5 times longer wear life over standard buckets, which means less bucket work and down time.**
- **It is a lot easier to work with than normal wear plate**
- **Very little maintenance - easy to repair cracks and chips**
- **Significant savings in downtime and maintenance costs**

Need a Loader bucket wear package that works?

Talk to us today 0800 654 323