

Super-Clad is a super-tough material that lasts up to 30 times longer than mild steel and up to 20 times longer than manganese steel in applications that demand unusually high abrasion resistance. It is manufactured by metallurgically bonding a composite of chromium-iron-carbon alloy and chromium carbides to mild steel substrate, in a process that yields a highly abrasion-resistant “overlay” material. It also has good impact capabilities.

MAJOR FEATURES AND BENEFITS:

- Outstanding abrasion resistance due to its 600 BHN matrix
- Far more cost effective than conventional abrasion resistance materials with shorter service lives
- Good impact resistance
- Can be cold or hot formed
- Less maintenance—less downtime, too
- Easily welded
- Corrosion resistant

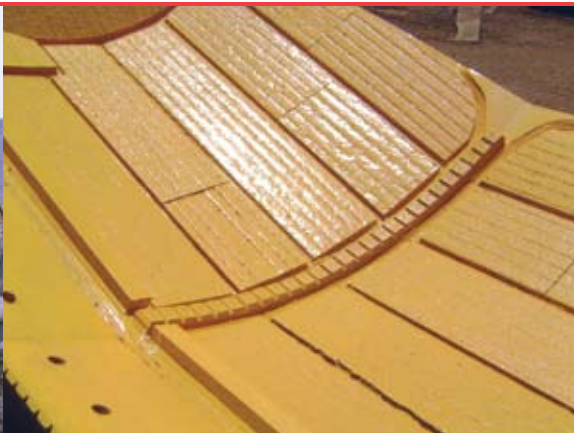
CHEMICAL AND PHYSICAL COMPOSITION:

Backing plate.....	mild steel
* Overlay: typical analysis	
Carbon.....	5.0%
Manganese	2.5%
Chrome	30.0%
Silicon	0.45%
Sulphur	0.015%
Phosphorus.....	0.013%
Moly	1.25%
Boron	0.005%
Hardness.....	600 BHN

*Standard deposit

MECHANICAL PROPERTIES:

Backing plate 63,000 psi. ultimate tensile strength	
Overlay.....	11,000 psi



APPLICATIONS

- | | |
|-----------------|-------------------------|
| Grizzly Screens | Bucket Liners |
| Skip Liners | Screen Decks |
| Skirt Plates | Fan Blade Liners |
| Feeder Trays | Breaker Liners and Bars |
| Hopper Liners | Truck Bed Liners |
| Crusher Liners | Feed Nozzles |

STOCK SIZES:

Offered in 90" x 117" sheets or cut to your specific requirements. Available in 1/8" and 1/4" single overlay thicknesses and double overlay thicknesses of 5/16", 3/8", and 1/2". Standard base plate is 3/16", 1/4", 3/8", and 1/2" thick, however, 5/16", 5/8", 3/4", 7/8", and 1" is available upon request for single or double overlay plate.

CUTTING:

Use plasma or air arc. Plasma arc is preferred for factory environment. Air arc is satisfactory at on-site locations for trimming and fitting precut plates or cutting strips to length.

FORMING:

Can be cold rolled or pressed to 10" radius-hot pressed to a tighter radius. Consult our Engineering Department for further information.

HOLES:

Plasma cut holes oversize, then weld in pre-machined mild steel plug. When accuracy is required, mild steel plug should be drilled after installation. Countersink holes can be cut using Buggo machine with compatible plasma torch.

WELDING:

Strips and plates can be welded into position using mild steel electrodes to weld the base plate to a mild steel component. When welding to a dissimilar metal, use AWS E309-16 hydrogen electrode. When plates larger than 4 sq. ft. will be exposed to high impact, plug weld the central area of plates to prevent fatigue caused by micro movements. For hardfacing over low hydrogen welds, we recommend two passes with 26% to 30 % chromium content welding electrode.



APPLICATIONS

- Fan Housing Liners
- Rotating chute Liners
- Transition Sections
- Screw Conveyors and Troughs
- Dredge Inlet Liner
- Dragline, Shovel, Loader, and Excavator Bucket Liners
- Shredder Knives
- Cyclone Entry Target Plates
- Cheek Plates
- Flume Liners
- Drag Slat Conveyor Liners
- Rock Grapple Liners