





BORN TOUGH



Wear & Tear is one of the major and Common Problem in Power, Cement, Sugar, Mining and Mineral processing industries. A Continuous research and development process has concluded in using various Wear Resistance methods. **Leomet Alloys** has developed **'LEOHARD** Wear Resistant Plates to fight wear & tear problems, resulting in reduced-plant shut downs, frequent repairs & maintenance of machinery and ultimately, reducing heavy losses. Indigenously developed **'LEOHARD** Wear Resistant Plates are manufactured with a combination of alloy wires and alloy metals, blended simultaneously, resulting a heavy layer of highly wear resistant alloy.

TOTAL WEAR SOLUTION

To cater the needs of various types of wear solutions, **'LEOHARD'** Wear Resistant Plates are manufactured with a combination of different alloys for different purposes. With a various combinations of alloy layers, hardened surface thickness and base plate thickness **'LEOHARD'** Wear Resistant plates have achieved high to extreme abrasion resistance and they can with stand moderate impact an high velocity erosion resistance.



RANGE OF LEOHARD WEAR RESISTANT PLATES

GRADE	FEATURES	ALLOY CHEMISTRY	HARDNESS IN R.C.
RC - GP	High Abrasive resistance combined with moderate applications. Mixer blades, Shovels, Chutes, Bunkers etc.	Cr. C. Mn. B. V.	55 to 58
RC - 57	Severe abrasion, moderate impact resistance. Crusher Hammers, Mandrills, Buckets lifts & Teeth, Liners etc.	Cr., C., Mn, B.V W.	57 to 60
RC - 62	Severe to extreme wear resistance and moderate impact. Cement kiln wear parts. shovel teeth. etc.	Cr., C., Mn, Nb, B.V W.	62 to 66
RC - 65	Extreme abrasion and resist fine particle erosion. Temp. Upto 700° C. Sinter breaker, Sinter fans, Diaphragm plates, Fan blades.	Cr., C., Mn., Nb., W. Mo.	65 and above
RC-58 spl	Resist High Velocity erosion and fine particle abrasion. Clinker Grinding, Coal Feeding Fan & liner plates, etc.	Cr. Mn., V. B. W	59 to 65
RC - W	Extreme High abrasion	Cr. C., W., Mo., V.	60 to 65

SPECIAL FEATURES

- Due to dendritic strength of primary & secondary carbide suspended in tough wear resistant matrix, **'Leohard'** Wear Resistant Plates can achieve hardness as required.
- 'Leohard' Wear Resistant Plates has smooth & wide bands, fused together to form a flat and continuos surface.
- 'Leohard' Wear Resistant Plates can with stand to prolonged impact loading at 700°C temp
- Due to concentration of stresses during manufacturing welding process, cracks develop at right angle to the surface and do not penetrate beyond the carbide layer as the fusion between the overlay and base plate is good. These cracks are essential for stress relieving purpose.
- Cost effective due to decreasing maintenance & plant down time and increasing productivity and efficiency

BORN TOUGH

- Shows good results in comparison with other conventional hard facings.
- We have CNC machine for cutting of plates as per required size accurately.
- Our welding procedure is by open arc welding using PLC Control system to form good chromium carbide matrix.

WE HAVE INTERNATIONAL LEVEL TESTING FACILITIES

- Abrasion testing machine as per ASTM G-65
- Microstructure & Chemical composition
- Hardness testing
- Dye Penetration Testing
- Hydraulic Testing
- Universal Testing Machine
- Impact Testing Machine

LEOHARD Wear Rosistant Plate Micro Structure.



LIFE EXPECTANCY OF LEOHARD PLATES IN COMPARISON TO OTHER MATERIALS 30 25 20 15 10 05 0 HARDENED Mn. STEEL NI HARD HI CHROME M. S. PLATE LEOHARD M. S. PLATE AT 700°C WEAR PLATE PLATE CASTING PLATES

COMPARISON CHART

Usually it is recommended to make the wear prone part of the equipment or complete equipment from the wear resistant plate in the plant installation stage. However, if it is not possible, we at **LEOMET ALLOYS.**, can help you with our state of art application engineering services by suggesting the best solution to tackle your problem of frequent replacement of wear prone parts.

METHODS OF APPLICATION

- **CUTTING** Standard procedure for wear resistant plate cutting is by air plasma arc. Abrasive Wheels can also be used in rare cases.
- FORMING Forming of Wear Resistant Plates has some limitations. Further, Wear plate can not be formed in two planes. Such problems can be sorted out by our expert application support engineers by studying the shape of wear prone parts, it's location and application in the equipment and they can suggest the best solution.
- FIXING -'LEOHARD' Wear Resistant Plate used as a structural component as the case may be keeping the forming limitations in mind.
- **'LEOHARD'** Wear Resistant Plate with it's M. S. Base plate can be welded directly to mother plate by low hydrogen electrodes.
- Studs can also be welded to **'LEO HARD** Wear Resistant Plate on base plate side for fixing the same by providing appropriate holes on the mother plate.
- **'LEOHARD'** Wear Resistant Plate can be provided with predetermined CSK holes for fixing the same by on to mother plate by CSK Bolts/ Nuts.
- By using Cotter Pins pegging of **'LEOHARD'** Wear Resistant Plate can be achieved for high abrasive wear on inclined surfaces.

RANGE OF AVAILABILITY

'LEOHARD' Wear Resistant Plates are available in wide range of base plate thickness and overlay thickness to suit the specific applications.

BASE PLATE:

From 6mmthk. To 16mm thk. From 16mm thk. To 40mm thk. Standard Size: 1150mm X 4900mm 1150mmX3000mm Formed and cut according to customer's need and also

pre-fabricated parts thereof.

OVERLAY

4mm to 6mm thk 4mm to 9mm thk

DEALERS NETWORK:

Maharashtra, Gujarat, Rajasthan, Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Tamilnadu, Delhi, Orissa.

RANGE OF APPLICATIONS:

'LEOHARD' Wear Resistant Plate finds its use in nearly all the plants where material is transferred in bulk quantities.

CEMENT PLANT

- Clinker Discharge for Raw Mill / Cement Mill inlet & Discharge Chute.
- Outlet Duct Bend for Coal Mill.
- Liners for Crusher Discharge Hopper.
- Damper Blades.
- Louver Plates.
- Redler / En-masse Conveyor,
- Bucket Elevator Chute.
- Cyclone Casing Plates.
- Conveyors.
- Housing for L. S. Crusher Impactor.
- Cover Assly. for Coal Mill Roller.

- Coal Mill material Feed Pipe.
- Feed Hopper & Chute.
- D S M Screen.
- Polycom Impeller Separator
- Coal Crusher Liners.
- Coal Mill Dynamic Separator.
- Cooler Exh. Fan Blade Liners.
- Liners for Crusher.
- Inlet Cone for Cement Mill.
- Impeller Blades.
- Liners for Raw Mill Fan Vanes.



MATERIALS



RANGE OF APPLICATION:

STEEL PLANT

Sinter Plant	Feed Drums, Screens, Fan Blades, Fan Casings, Sinter	
	Cooler Parts, Louver Plates.	
Blast Furnace	Skip Body, Skip Track Liners.	

MINING

COAL FACE (Open Cast)

- Line Pan Scraper: Scraper Blades.
- Sheerer Drum:
- Liner Plates.

Drum Face.

Liner Plates

POWER GENERATION

- Collector Pan.
- Liner for Mill Elbow Plant.
- Coal Feeder
- Liners for Coal Feeder
- Outlet Ventury Collar Assly.
- P A. Fan Casing.
- Flue Gas Duct.
- Strips for Screw Conveyor.
- Inlet / Discharge Chutes.
- Vibro Feeder Trough.

- Coal Mills Applications.
- Classifier Blades.
- Guide Vanes.
- Fan Runners.
- Fan Impeller.

- Strata Bunker: • Skip Liners :

LEOMET WEAR PARTS A DIVISION OF LEOMET ALLOYS

POWER GENERATION

- Collector Pan.
- Liner for Mill Elbow Plant.
- Coal Feeder
- Liners for Coal Feeder
- Outlet Ventury Collar Assly.
- P A. Fan Casing.
- Flue Gas Duct.
- Strips for Screw Conveyor.
- Inlet / Discharge Chutes.
- Vibro Feeder Trough.
- Coal Mills Applications.
- **Classifier Blades.**
- Guide Vanes.
- Fan Runners.
- Fan Impeller.

COAL PREPARATION:

- Raw Coal Bunker:
- Weigh Feeder:
- Scraper:
- Separating Bath:
- Middling Crusher:
- Sizing Screens:
- Primary Screens:
- Recovery Screens.









MATERIAL HANDLING

- Transfer Chutes.
- Feeder Trays
- Skirt Plates.
- Bucket Liners.
- Ducts / Bends.
- Spiral Chutes.
- Deflector Plates.





- Bunker Liners, Liners
- Chain Tracks, Sprocket Teeth. Launder Chute Liners.
- Crusher Cone.

Screen Decks.