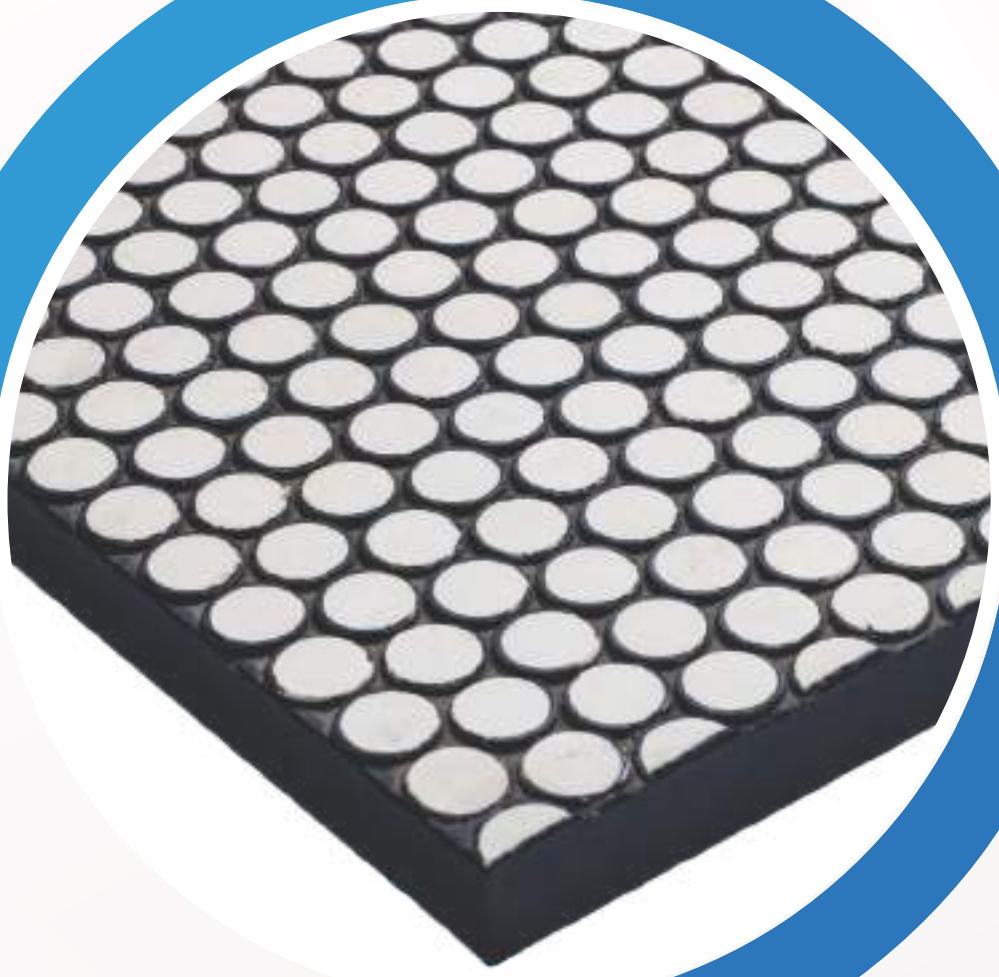
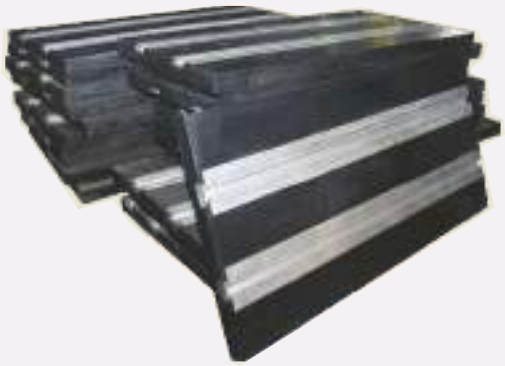


FORWEAR: COMPOSITE RUBBER & CERAMIC LINERS

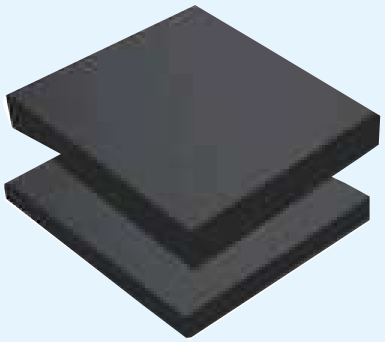
RUBBER WEAR LINERS

FORECH offers a wide range of Wear Resistant Elements in various dimensions, with thicknesses from 30 to 150 mm. These elements are designed as modular units to facilitate quick and easy replaceability of a worn out element from an entire chute, hopper or a truck-bed.
Each element is made of a rubber plate, which is bonded to a 5mm - 10mm thick steel plate, depending on the overall thickness of the total element. This provides the element with secure fastening.
FORECH Wear Resistant Elements are made of a very high quality wear resistant rubber grade developed specially to meet the mining and mineral processing industries' need for economical, high performance wear protection systems. These products have a high wear strength and provide a long service life, which results in less down time and even lesser maintenance costs.
FORECH Wear Resistant Elements are easy to handle and drastically reduce noise and vibration when installed and prove to be much more economical when compared to steel liners.



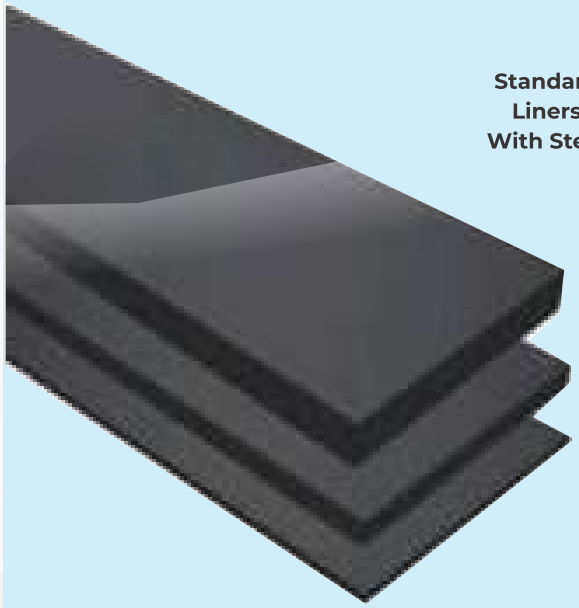
P P TYPE WEAR ELEMENTS
Smooth Wear Resistant Rubber 60 Shore A (with and without Steel Backing)

Thickness	Width x Length (mm)
PP 30	300x300 500x500
PP 40	300x300 500x500
PP 50	300x300 500x500
PP 60	300x300 500x500
PP 80	300x300 500x500



Small Square Liners With Steel

PP 30	500X1000 750X1500
PP 40	500X1000 750X1500
PP 50	500X1000 750X1500
PP 60	500X1000 750X1500
PP 80	500X1000 750X1500
PP 100	500X1000 750X1500
PP 120	500X1000 750X1500
PP 150	500X1000 750X1500

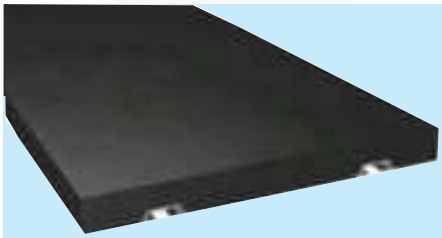


Standard Liners With Steel

Steel back liners are supplied with 5mm thick steel upto a total thickness of 80mm above which the steel backing is 10mm thick.

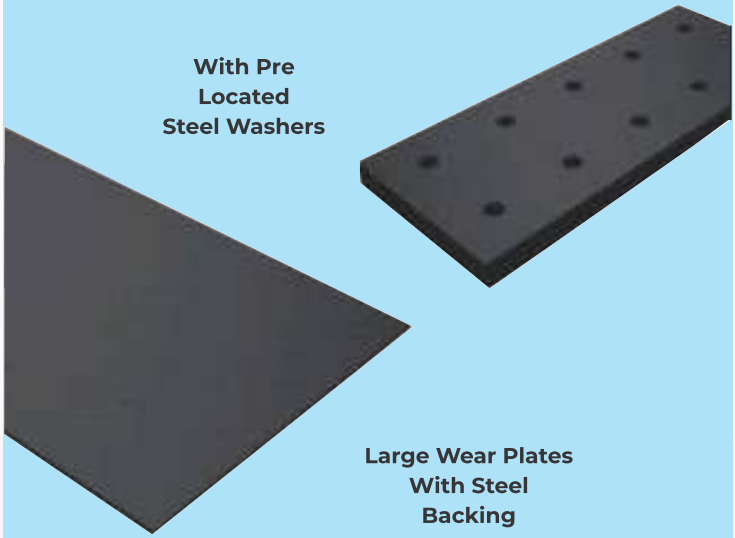
P P TYPE WEAR ELEMENTS
Smooth Wear Resistant Rubber 60 Shore A (with and without Steel Backing)

Thickness	Width x Length (mm)
SP 80	750X1500
PT 50	500X1000 750X1500
PT 75	500X1000 750X1500
PT 100	500X1000 750X1500



With Aluminium T-Track

PP-L 20	1500X2000
PP-L 30	1500X2000
PP-L 40	1500X2000
PP-L 50	1500X2000
PP-L 60	1500X2000
PP-L 80	1500X2000
PP-L 100	1500X2000
PP-L 125	1500X2000



With Pre Located Steel Washers

Large Wear Plates With Steel Backing

APPLICATION AREAS

- Forech Wear Liners offer excellent wear protection in tough conditions such as primary chutes, truck beds, bins and hoppers.
- Forech Wear Liners are resistant to all PH values and types of water and to most oils in small concentrations.
- Forech Wear Liners are not to be exposed to continuous heat in excess of 70° C.

CERAMIC WEAR LINERS

Huge volumes of ROM and crushed material at very high transport speeds in conjunction with low angles of impact tend to accelerate wear which requires frequent change of lining surface resulting in costly down times.
For such high wear and extreme applications, high density aluminium oxide ceramic tiles have proven to be an excellent choice as a lining material.
By embedding the ceramic tiles on to the rubber, it is also possible to achieve impact cushioning along with the superior wear resistance provided by alumina ceramic tiles.

They key advantages of using Ceramic Pads as a lining material are:

- Long service life
- Reduced down times
- Quick and easy installation
- Special Ceramic Design Shapes
- Noise reduction on the system

Forech's ceramic pad range encompasses light, medium and heavy duty applications.
We provide ceramic liners of varying thicknesses to suit the needs of specific installations

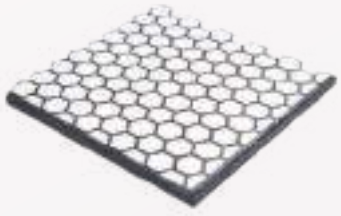
Ceramic Tile Specifications	
Aluminium Oxide (min) Al_2O_3	92%
Density (g/cc)	3.65
Hardness (R 45 N)	79 min.
Cold Crushing Strength (Mpa)	2050 min.
Flexural Strength at Room Temp. (Mpa)	240 min.
Water absorption	0%

Test	Specification
Abrasion by impingement	0.05 grams max.
Abrasion by Rubbing	0.1 grams max.

Base Rubber Specification	
Compound Code	R-1608
Polymer	SBR
Specific Gravity	1.13 +/– 0.03
Shore Hardness °A	60 +/– 5
Elongation at break % Min.	450%
Tensile Strength	17.5 N/mm^2
Abrasion Loss	150 mm^3 at 10N

LIGHT DUTY APPLICATIONS

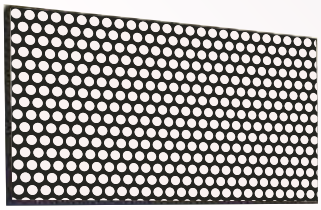
For light duty application, Forech provides a square/hex tile design with flushed tiles or with rubber between tiles that allows the product to be light and flexible.
The gap allows for easy installation on both concave and convex surfaces. The size of the sheet can also be easily changed by cutting between the ceramic tiles and through the rubber-allowing you to customize the sheet according to your installation's needs.
The back of the liner for light duty applications is provided with a Bonding Layer to strengthen the rubber to metal bond, as well as to reduce the time required to glue the sheet during installation.



STANDARD RANGE

S. No.	Dimensions	Ceramic Thickness (mm)	Backing Thickness Including BL/Steel (mm)	Tile Design	Backing Type
1.	500mm X 500mm X 5mm without gap	3	2	Square	Bonding Layer
2.	500mm X 500mm X 6mm with / without gap	3	3	Square	Bonding Layer
3.	500mm X 500mm X 6mm with / without gap	4	2	Square	Bonding Layer
4.	500mm X 500mm X 8mm with / without gap	4	4	Square	Bonding Layer
5.	500mm X 500mm X 10mm with / without gap	4	6	Square	Bonding Layer
6.	500mm X 500mm X 10mm with / without gap	5	5	Square	Bonding Layer
7.	500mm X 500mm X 10mm with gap	6	4	Hexagonal	Bonding Layer
8.	500mm X 500mm X 15mm with / without gap	10	5	Square	Bonding Layer

MEDIUM DUTY APPLICATIONS



For applications handling medium to heavy and more abrasive material, Forech recommends its ceramic liners with medium thickness (10-20mm) tiles duty applications.
These pads commonly come with a steel backing for stud welding. Rubber spacing between the tiles allows the pads to be cut to size by hand; allowing quick change overs and easy maintenance.
Ceramic liners for medium duty applications, specially for curved surfaces are supplied with a CN bonding layer.

STANDARD RANGE

S. No.	Dimensions	Ceramic Thickness (mm)	Backing Thickness Including BL/Steel (mm)	Tile Design	Backing Type
1.	500mm X 500mm X 20mm with gap	12	8	Hexagonal	Bonding Layer / Stee
2.	500mm X 500mm X 20mm without gap	12	8	Hexagonal	Bonding Layer / Stee
3.	507mm X 532mm X 20mm with gap	12	8	Hexagonal	Bonding Layer
4.	500mm X 500mm X 30mm with gap	25	5	Hexagonal	Bonding Layer
5.	500mm X 500mm X 35mm with gap	25	10	Hexagonal	Steel
6.	150mm X 303mm X 32mm with gap	20	12	Rectangular	Steel
7.	303mm X 303mm X 32mm with gap	20	12	Rectangular	Steel
8.	303mm X 456mm X 32mm with gap	20	12	Rectangular	Steel
9.	303mm X 606mm X 32mm with gap	20	12	Rectangular	Steel
10.	430mm X 430mm X 32mm with gap	20	12	Rectangular	Steel
11.	456mm X 456mm X 32mm with gap	20	12	Rectangular	Steel
12.	500mm X 500mm X 32mm with gap	20	12	Rectangular	Steel
13.	150mm X 303mm X 32mm with gap	20	12	Cylinder	Steel
14.	303mm X 303mm X 32mm with gap	20	12	Cylinder	Steel
15.	303mm X 456mm X 32mm with gap	20	12	Cylinder	Steel
16.	303mm X 606mm X 32mm with gap	20	12	Cylinder	Steel
17.	500mm X 500mm X 32mm with gap	20	12	Cylinder	Steel

HEAVY DUTY APPLICATIONS

For handling extremely abrasive materials with very high material flow rates, Forech recommends its ceramic liners for heavy duty applications.
This range offers ceramic wear liners with large ceramic blocks embedded into rubber upto 75mm deep and are supported by heavy steel plate backing designed for stud welding.
The special rubber backing provides impact cushioning that allows movement of the tile within the rubber under heavy impact resulting in long use of the liner without the danger of cracking the ceramic tile.

STANDARD RANGE

S. No.	Dimensions	Ceramic Thickness (mm)	Backing Thickness Including BL/Steel (mm)	Tile Design	Backing Type
1.	150mm X 303mm X 64mm with gap	50	14	Rectangular	Steel
2.	303mm X 303mm X 64mm with gap	50	14	Rectangular	Steel
3.	303mm X 456mm X 64mm with gap	50	14	Rectangular	Steel
4.	303mm X 606mm X 64mm with gap	50	14	Rectangular	Steel
5.	150mm X 303mm X 69mm with gap	50	14	Rectangular	Steel
6.	303mm X 303mm X 69mm with gap	50	14	Rectangular	Steel
7.	303mm X 456mm X 69mm with gap	50	14	Rectangular	Steel
8.	303mm X 606mm X 69mm with gap	50	14	Rectangular	Steel