

**Alu-Cera Polymer<sup>®</sup>**  
HIGH IMPACT ABRASION RESISTANT CERAMIC COMPOSITE PANELS



Plant - II Estd. 1992



Plant-I Estd. 1970

## OUR LEGACY OF EXCELLENCE

Consistent commitment in maintaining high quality standards, customer satisfaction and innovative technology is the achievement and the prime object of the company.

Since the establishment of JYOTI CERAMIC industries in 1970, the company has maintained it's leading global position in the field of technical ceramics by satisfying it's customers.

We at Jyoti have left no stone unturned in guaranteeing optimum quality control and production efficiency by establishing two ceramic manufacturing plants within striking distance of each other. Each plant covers around 6000 m<sup>2</sup> of floor space of most modern construction spread over four acres of land surrounded by landscaped lush green gardens.

The manufacturing facilities comprises of latest generation automatic and semi-automatic production machines, microprocessor controlled gas fired high temperature kilns, Slip houses are equipped with battery of ball mills, high speed bead mills and spray dryers for ceramic body preparations.

Both the plants are supported with modern engineering workshop equipped with C.N.C milling centres, lathes, wire-cut E.D.M and traditional machines required for fabrication and construction of moulding tools and special purpose machines with the help of CAD/CAM designing facilities.

In addition to the engineering workshop, the plants are supported by a State-of-the-Art Research and Development Laboratory.

Build on around 600m<sup>2</sup> of floor space of world class modern construction, the R&D Lab is equipped with latest generation testing equipments like S.E.M, A.A.S, X.R.D, Laser particle size analyser, cyclic salt spray analyser, abrasion tester, digital measuring microscopes and profile projectors, a fleet of high temperature gas and electric sintering kilns, high pressure ceramic injection moulding machines etc

Today besides meeting with our domestic requirements JYOTI CERAMIC is exporting around 70% of it's wide variety technical ceramics to 52 global countries including USA, EUROPE, JAPAN, CHINA, S.KOREA, TAIWAN, AUSTRALIA AND SOUTHEAST ASIA.

## MANUFACTURING AND R&D FACILITIES



CNC Milling & Machining



CNC EDM



CNC Wire-Cut



Automatic Isostatic & Uniaxial Presses



A. A. S.



S. E. M.



High temp. Tunnel Kiln



Battery of High temp. Kilns



High temp. Bell type Kiln



## ALU-CERA POLYMER PANELS

Alu-cera polymer panels are new generation composite panels, a combination of sapphire hard abrasion resistant alumina ceramic cylinders/ceramic tiles vulcanized in resilient rubber base. Sapphire hard ceramic surface provides exceptional resistance to wear, while the elastic property of the rubber effectively dampens the impact forces which can crack the ceramics. Rubber also helps to substantially reduce the vibrations, sounds, and the impact shock generated from impacting rocks.

Laid out in zigzag and brick pattern, ceramic tiles/cylinders is an excellent feature for handling large material volumes at different angles without developing a wear pattern.

## AREAS OF APPLICATIONS

Feeders, chutes, bins, transfer points, in conveyor systems, screen feed plates, mill discharge chutes, bunker on maximum APPLICATION TEMPERATURE 80 °C / 176 °F.

**MAJOR INDUSTRIES:** Coal fired power plants, cement plants, blast furnace plants and host of other industries which requires high impact abrasion resistant surfaces.

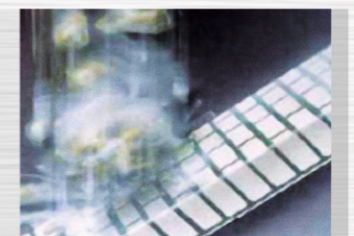
**SIZE :** Alu-cera composite polymer panels are available in various sizes. Ceramic tiles are available from 10 mm x 10 mm to 100 mm x 150 mm; thickness of ceramic tile can be from 1.5 mm to 50 mm.

Panel size ranges from 100 mm x 100 mm to 500 mm x 500 mm, backed by an alloy steel plate with thickness ranging from 3 mm to 10 mm. As per the panel size, steel back plate is welded with suitable one or two number MS CSK.M16 BOLTS 45 mm long complete with MS washer and nut. Thickness of the rubber depends upon the impact stress expected.

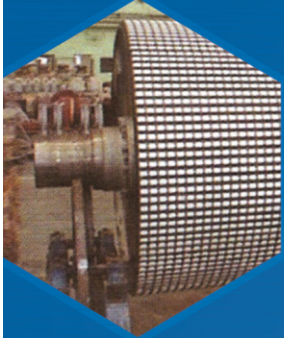
## ADVANTAGES OF USING ALU-CERA POLYMER PANELS

- Sapphire hard and wear resistant ceramic tile / cylinder panels
- Installation friendly therefore reduces downtime
- Excellent sound insulation
- Use as per special requirement in variety of sizes, thickness and shapes

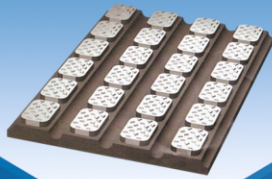
Demonstration of wear and low angle impingement resistant ceramic combined with natural rubber to absorb high impact and yield superior service life.



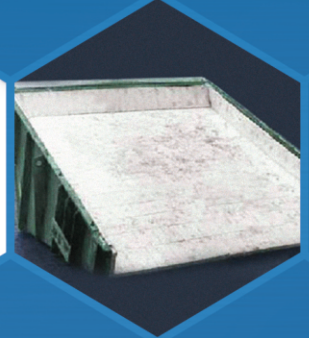
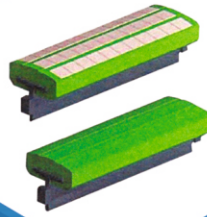
Various applications of Alumina-Ceramic tiles vulcanised in rubber



Pulley Lagging



Angle Returness



Vibrating Chute



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