# CHEMSHUN CERAMICS

### Alumina Ceramic Tiles

Chemshun wear resistant ceramic lining tiles include 92% Al<sub>2</sub>O<sub>3</sub> series, 95% Al<sub>2</sub>O<sub>3</sub> series and Al<sub>2</sub>O<sub>3</sub>+ZrO<sub>2</sub> composition series, can effectively protect your equipment /machines against wear, wherever abrasive materials are mined, transported and processed, especially in the industries of mining, primary steel, fire power plant, cement, port etc. Chemshun lining tiles help user reduce their downtime and improve their productivity.

Chemshun could afford customers the optimum lining tiles accommodate the detailed equipment wear protection demand. This adapts all the lining tiles totally meet the application. Chemshun ceramic lining tiles include: plain tile, weldable tile, trapezoidal tile, curved & lock tile, and engineering tile with special geometries.



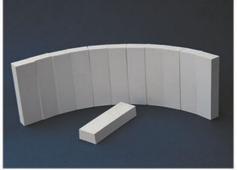
Alumina Ceramic Tiles Alúmina de cerámica



Alumina Ceramic Plain Tiles Azulejo de cerámica alúmina plain



Alumina Ceramic Weldable Tiles Azulejo de cerámica alúmina soldable



Alumina Ceramic Trapezoidal Tile Alúmina de cerámica azulejo de Trapezoide



Alumina Ceramic Curved Tiles with Self-lock Teja curva cerámica alúmina con auto - Lock

# Chemshun Ceramics Advantages

- Tailor Made Engineered Ceramics Available
- Accept OEM & ODM Wear Engineered Ceramics & Project
- Provide Professional Industrial Wear Consult and Solution
- Accept Small & Big Quantity Orders
- Delivery Fast

# PINGXIANG CHEMSHUN CERAMICS CO.,LTD





in English

En español

Factory & Office Address: Non-metal Area of Shangliuyuan, Economic Development Zone
Pingxiang City, Jiangxi Province, P.R. China.Code 337000
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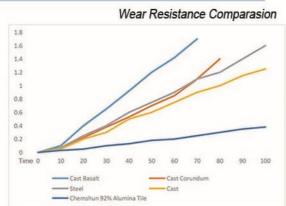
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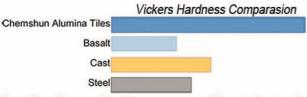
# Advantages of Chemshun Wear Resistant Ceramic Lining Tiles

- · Excellent abrasion resistance:
- Excellent impact resistance;
- · Excellent hardness;
- Excellent corrosion resistance (resist the strong alkaline, strong acid slag, and liquefied materials);
- Excellent heat resistance (up to 1500℃);
- · Easily and quickly installation;
- Smooth surface can be reduce barrage and friction coefficient to prolong the device working life;
- Low density reduce the lined equipment weight and improve the equipment working effectiveness.

### Comparasion of Different Materials



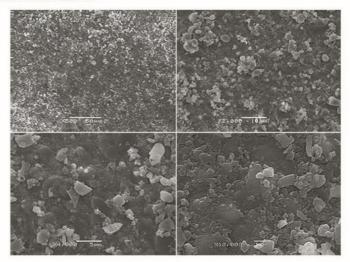
The blast jet wear testing prove: Chemshun alumina lining tiles wear resistance is excellent and much better than the cast basalt, cast corundum, steel, cast and other hardfaced materials.



The hardness testing prove: Chemshun alumina lining tiles Vickers hardness is much better than the other material Basalt, Cast, Steel. Now Chemshun alumina lining tiles as the wear resistance materials are popular in the market.

### Micro Structure of 92% Alumina Ceramics

Fine size of the raw material makes the product superior in quality. Follows shows the micro structural of our finished ceramics under different magnifications. The interstructure of our ceramics is very compact and well-distributed.



### **Technical Datas**

Properties	Unit	CS 92 I	CS 92 II	CS 95
Al <sub>2</sub> O <sub>3</sub>	%	92	92	95
ZrO <sub>2</sub>	%	-	-	-
Density Densidad	g/cm <sup>3</sup>	3.60	3.60	3.65
Water Absorption Absorción de agua	%	0	0	0
Flexural Strength Resistencia a la flexión	Мра	270	300	320
Moh's Hardness Dureza de Moh	Grade	9	9	9
Rockwell Hardness Dureza Rockwell	HRA	80	85	87
Vickers Hardness (HV10) Dureza Vickers (HV10)	Kg/mm <sup>2</sup>	1000	1150	1200
Fracture Toughness Resistencia a la fractura	Mpa.M <sup>1/2</sup>	3-4	3-4	3-4
Thermal Expansion Coefficient (25-1000℃) La expansión térmica coefficien (25-1000℃)	1X10 <sup>-6</sup> /°C	8.0	7.6	8.1
Maximum Operation Temperature Temperatura máxima de operación	τ	1450	1450	1500

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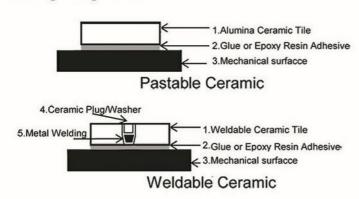
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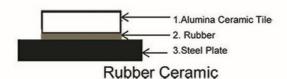
# CHEMSHUN

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### Installation Methods of Alumina Tiles

Different shapes of alumina tiles, the installation methods are different. For example, the alumina plain tile is normally pasted on the surface of the facility directly by epoxy resin adhesive or cement, and the weldable tile is installed on the surface of facility by welding and glue,etc.





### Standard Size of Chemshun Alumina Tile

Plain Tile	Weldable Tile	Trapezoid/Pipe Tile
150x100xT6-50mm	150x100xT13-50mm	150x33/28x13mm
150x75xT6-25mm	100x75xT13-50mm	150x50/46x25mm
150x50xT6-25mm	100x100xT13-50mm	150x53/49.3x13mm
150x25xT6-25mm	120x80xT13-25mm	100x35/32x13mm
100x100xT6-50mm		150x43/47x25mm
100x75xT6-50mm		150x47/53x25mm
100x50xT6-50mm		150x43/47x50mm
100x25xT6-25mm		
120x80xT6-25mm		
75x25xT6-13mm		
50x50xT3-50mm		

### Installation Guide of Alumina Tiles



- Cleaning the device surface first.
- 2. Mixing the epoxy resin adhesive as per requested proportion. The adhesive must used up within 30 minutes after mixing.
- 3. Applying the mixed epoxy resin adhesive onto the back of the Chemshun ceramic tiles or by large installation areas direct on the steel construction.

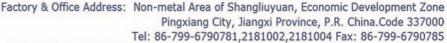
Notice: Epoxy resin adhesive will be visible on top surface of the tiles, it is not necessary to clean the surface.

- 4. Carefully put the Chemshun ceramic tiles on the casing and press the welding washer (welding insert/welding metal) into the hole.
- 5. Welding: The normal welding washer (welding insert / welding metal) is cold rolled steel which can be plug welded using conventional welding procedures.
- 6. Place a little epoxy resin adhesive into the hole and then carefully press the ceramic plug (ceramic cap) into the adhesive.
- \*After 24 hours the adhesive is harden up and the installation is ready to use.

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## Application Reference for the Alumina Ceramic Tiles

With good wear resistance and impact resistance, the wear alumina ceramics are widely used in the mining, power plant, steel plant and cement industries. It can increase operational efficiencies by extending plant and equipment life, and reduce the unnecessary down-time and maintenance cost .The wear ceramic tiles play a great role in the excessive wear fields.



Plain Tile Lining the Hopper Plain tile Revestimiento la tolva



Weldable Tile Lining the Big Pipe Revestimiento de tuberías soldables azulejo grande



Pipe Tile Lining the Pipe Pipe tile Revestimiento de la tubería



Weldable Tile Lined Hopper Weldbale Tile lined tolva

# **Application Ranges**

Industry	Parts	
Mining	Crusher cone, sizing screen, transfer chute, scraper, pipe, drum pulley, cyclone separator,etc.	
Power Plant	Coal feeder, collector pan, fan runner, chute, elbow, silos.	
Steel Plant	Fan housing & blades, screen, feed drum, bunker, hopper, slurry pipeline.	
Cement Plant	Clinker discharge, cyclone, chute, conveyor, fee hopper, crusher.	
Others	Port, nozzle.	

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