



**Making  
Materials  
Matter**

**Industrial Ceramics**



Automotive



Chemical



Defence



Electronics



Energy



Food



Heavy Industries



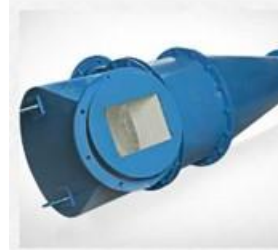
Life style



Medical



Minerals & Metallurgy



Wear Resistant



Extreme wear & Impact  
Resistant – RbSiC



Electrical Resistant



Wear & Thermal  
Resistant



Wear & Impact  
Resistant

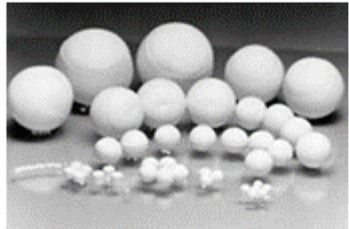


**CUMI Welcomes You**

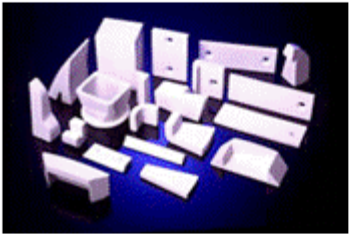


## Since 1991

Grinding Media



Wear Resistant Liners

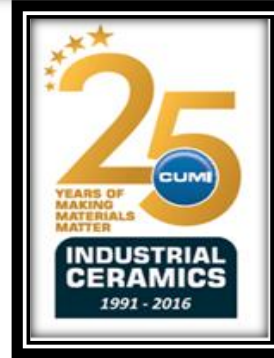


Lined Equipment



## Wear Ceramics

- Bulk Material Handling
- Ceramic Tile/Mineral Processing
- Coal Based Thermal Power
- Mining
- Cement
- Steel



## Technical Ceramics

- Fluid Handling
- Battery Tooling
- Ignition System
- Molten Aluminum handling
- Ballistic Protection
- Customized applications
- Vacuum Interrupters
- Vacuum Capacitors
- Solid Oxide Fuel Cells
- Night Vision Cameras
- Communication Devices
- Feedthroughs
- X Ray Tubes

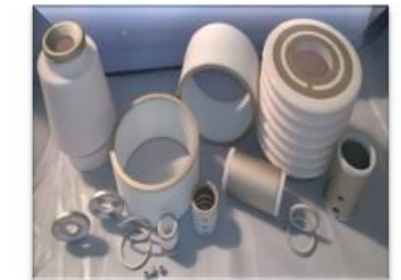
Engineered Ceramics

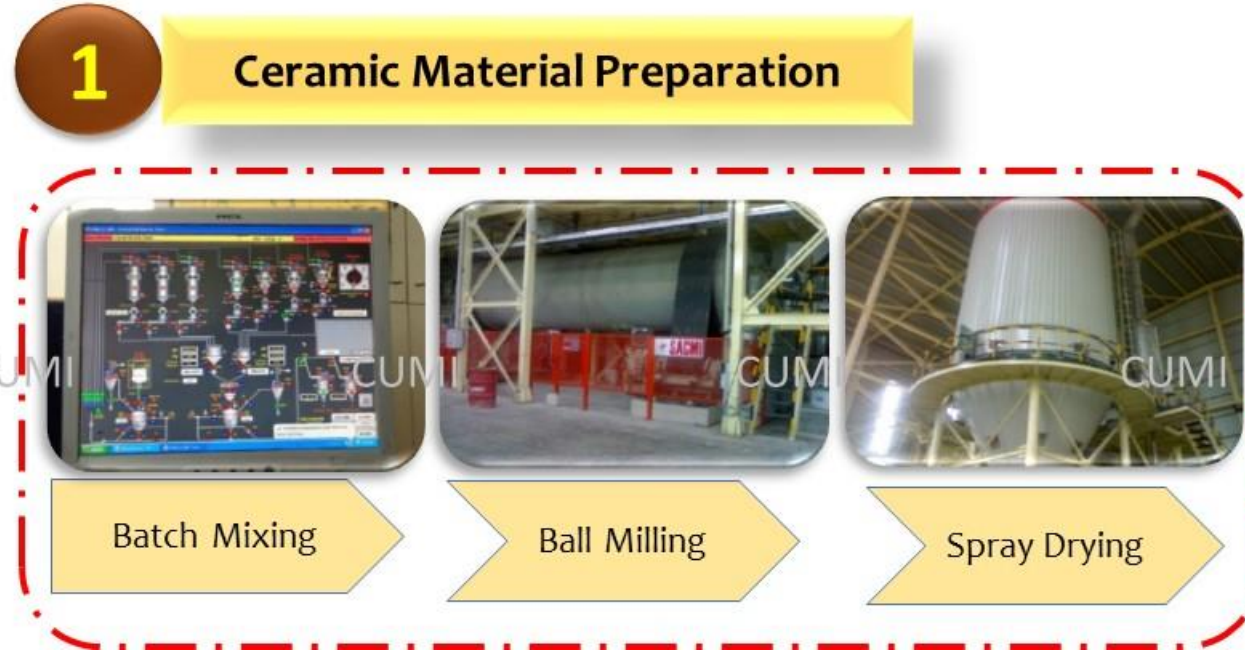


Metallized Ceramics  
Cylinders



Devices





**Raw material being handled**

**Alumina, Zirconia, Silicon Carbide, Aluminum Titanate**



# 2

## Ceramic Manufacturing & Finishing Process



- Wear
- Engineered
- Metallised

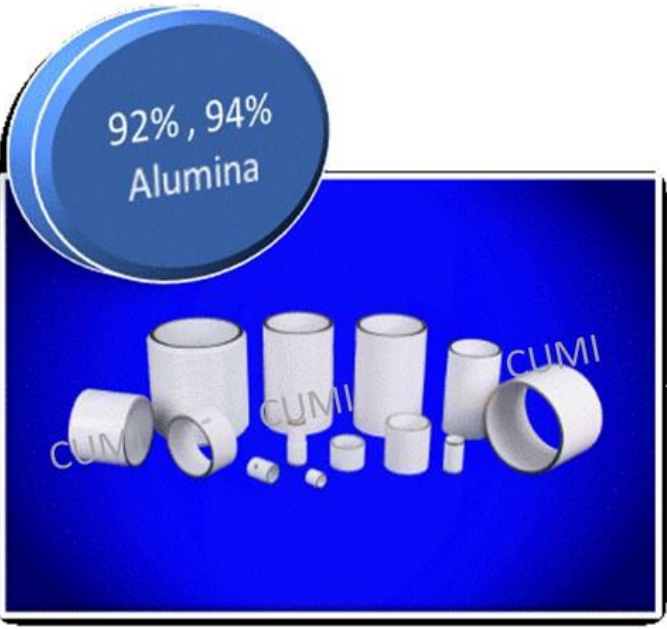
# 3

## Inspection and Despatch



# Metallised Ceramics

Only Indian Manufacturer of Metallised ceramics



Cylindrical shape  
Metallisation on top and bottom  
Application :  
Vacuum Interrupter/Capacitor



Any complex shape  
Metallisation on any surface  
Application :  
Hermetic sealed products

## Cylinders

OUTER DIAMETER	: 1 inch ~ 6 inch
LENGTH	: Up to 6 inch
SHAPE ( OD )	: PLAIN / GROOVED
SHAPE ( ID )	: PLAIN / STEPPED/ GROOVED
METALLISING	: MOLY MANGANESE ( 10 ~ 38 microns)
PLATING	: NICKEL ( 2 -10 microns)

### Application: Vacuum Interrupter



## Devices

OUTER DIAMETER	: 1 inch ~ 6 inch
LENGTH	: Up to 6 inch
SHAPE ( OD )	: ANY SHAPE
METALLISING	: ANY SURFACE
METALLISING	: MOLY MANGANESE ( 10 ~ 38 microns)
PLATING	: NICKEL ( 2 -10 microns) ( Silver Coating-Possible )

### Application: Vacuum Devices





# Metallised Ceramics Applications

CUMI offers :94% , 99.5% ,975M , 995M Alumina Metallised Ceramics

Vacuum Interrupter



Vacuum Capacitor



Panoramic Wave Ceramic X Ray Tube



Unipolar Metal Ceramic X Ray Tube



Image Intensifier Tube



Xenon Lamp



Power Triodes



Transmission tubes

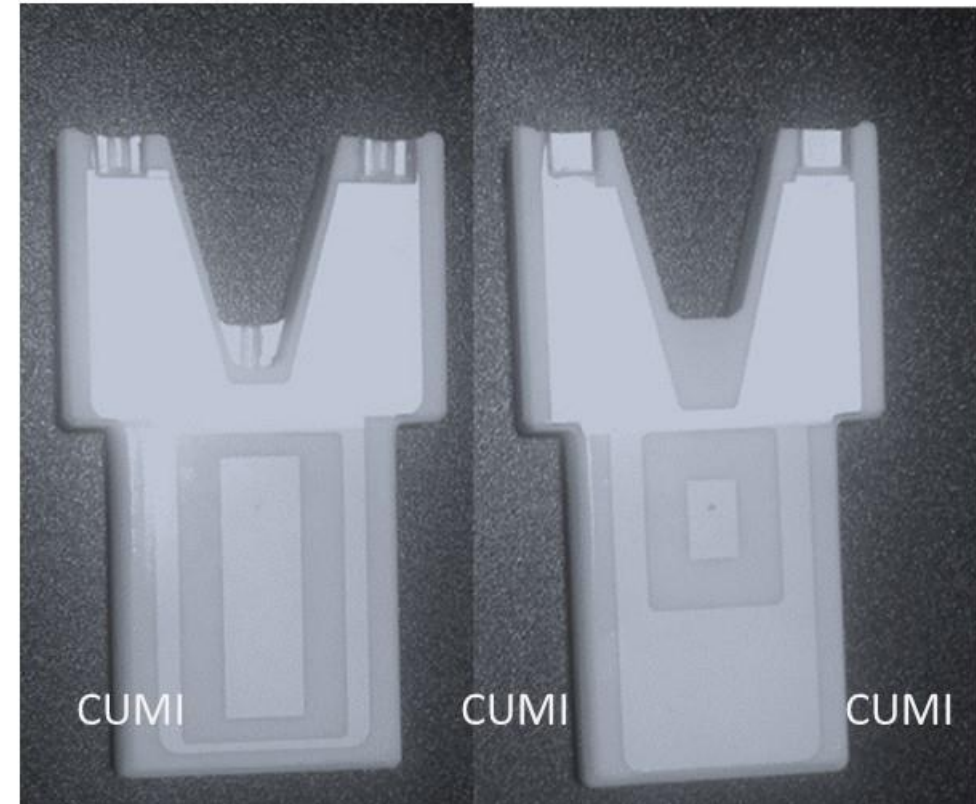


# *Silver Coated Ceramics for Sensor applications*

Ceramic Diaphragm for  
Vacuum Gauges



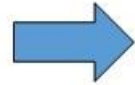
Ceramic plates for  
Capacitive Sensors



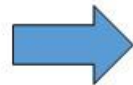


# Ceramics for Industrial X Ray Tubes

Unipolar Metal Ceramic  
X Ray Tube



Panoramic Wave Ceramic  
X Ray Tube



Cumi Can also manufacture supply customised shapes as per customer requirements for X Ray Tubes  
**(both Industrial and Medical)** applications