CUMIREX and CUMISTAR Nitride-bonded Silicon Carbide refractories have high thermal conductivity, superior thermal shock and oxidation resistance. They also have higher hot strength compared to oxide bonded Silicon Carbide refractories. This makes them an ideal choice as kiln furniture. Their non-wetting property makes them suitable for use in non-ferrous metal contact areas.

**CCUMIREX :** Silicon Nitride Bonded SiC, Pressed Product  
**CUMIREX SUPER :** Silicon Nitride (+ Oxy Nitride) Bonded SiC, Pressed Product

Feasibility of special shapes require case-by-case study by CUMI manufacturing and Technical team. We would request all our customers to kindly ask CUMI Sales Representatives for detail Product Data, Quality Assurance Plans etc. as and when applicable.
### CAST CUMIREX & CUMISTAR

**USER INDUSTRIES**  
- Power
- Ceramics
- Aluminium
- Copper

**APPLICATION**  
- Wear Resistant Parts, Burner tiles
- Kiln furniture, Burner tube
- Tap-out blocks
- Thermocouple sheath

### Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>UNIT</th>
<th>CAST CUMIREX</th>
<th>Typical Value</th>
<th>Limit Value</th>
<th>CAST CUMISTAR</th>
<th>Typical Value</th>
<th>Limit Value</th>
<th>CUMIREX CT</th>
<th>Typical Value</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Hot Face Temperature</td>
<td>°C</td>
<td>1550</td>
<td>1550</td>
<td>1550</td>
<td>1550</td>
<td>1550</td>
<td>1550</td>
<td>1550</td>
<td>1550</td>
<td></td>
</tr>
<tr>
<td>Bulk Density</td>
<td>gm/ cc</td>
<td>2.62 min.</td>
<td>2.65</td>
<td>2.70 min.</td>
<td>2.75</td>
<td>2.60 min.</td>
<td>2.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apparent Porosity</td>
<td>%</td>
<td>18.0 max.</td>
<td>17.0</td>
<td>11.0 max.</td>
<td>9.0</td>
<td>18.0 max.</td>
<td>15.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cold Crushing Strength</td>
<td>Kg/ cm²</td>
<td>1400 min.</td>
<td>1500</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modulus of Rupture</td>
<td>Kg/ cm²</td>
<td>300 min.</td>
<td>320</td>
<td>1500 min.</td>
<td>1550</td>
<td>-</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Room Temperature</td>
<td></td>
<td>400 min.</td>
<td>440</td>
<td>1500 min.</td>
<td>1600</td>
<td>-</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermal Conductivity At 900°C Hot Face Temperature</td>
<td>W/ m/K</td>
<td>15.0 min.</td>
<td>15.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Analysis</td>
<td>%</td>
<td>75.0 min.</td>
<td>77.0</td>
<td>75.0 min.</td>
<td>75.6</td>
<td>75.0 min.</td>
<td>75.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Si₃N₄</td>
<td></td>
<td>18.0 min.</td>
<td>20.0</td>
<td>20.0 min.</td>
<td>21.0</td>
<td>20.0 min.</td>
<td>20.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>-</td>
<td>3.0</td>
<td>1.0 max.</td>
<td>0.90</td>
<td>1.0 max.</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fe₂O₃</td>
<td></td>
<td>-</td>
<td>0.5</td>
<td>0.2 max.</td>
<td>0.18</td>
<td>0.20 max.</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Recommended Laying Mortars**

**Note:** The above typical values shown are based on average test results on standard samples. Properties are subject to reasonable variation based on product shape etc. and hence should be considered for general guidance only.

CUMIREX and CUMISTAR Nitride-bonded Silicon Carbide refractories have high thermal conductivity, superior thermal shock and oxidation resistance. They also have higher hot strength compared to oxide bonded Silicon Carbide refractories. This makes them an ideal choice as kiln furniture. Their non-wetting property makes them suitable for use in non-ferrous metal contact areas.

- **CAST CUMIREX**: Silicon Nitride Bonded SiC, Vibro-cast Product
- **CUMISTAR**: Silicon Nitride Bonded SiC, Slip-cast Premium Product
- **CUMISTAR CT**: Silicon Nitride Bonded SiC, Slip-cast Product

Feasibility of special shapes require case-by-case study by CUMI manufacturing and Technical team. We would request all our customers to kindly ask CUMI Sales Representatives for detail Product Data, Quality Assurance Plans etc. as and when applicable.

---

**SUPER REFRACTORIES**

**Works**

Plot No. 102 & 103, Sipcot Industrial Complex, 
Kumudirampur, Adhartal Industrial Estate, 
Plot No. 35, 37, 48-51, Adhartal Industrial Estate, 
Plot No. 28, 32, 36, 44, Sipcot Industrial Complex, 
Plot No. 28, 32, 36, 44, Sipcot Industrial Complex, 
Plot No. 35, 37, 48-51, Adhartal Industrial Estate, 
Katpadi Taluk, Vellore District - 632516

Phone: +91 4172 244982. 
Fax: +91 4172 255396.