



## CERAGLASS INDIA 2010

An International Trade Fair & Conference on Ceramics, Glass & Allied Products

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### International Conference on Energy Policy & Technology for the Ceramics Industry

Saturday, 13 November 2010: EPIP, Sitapura Jaipur

#### Summary

	<b>Inaugural Session</b>
Issues Deliberated	<ul style="list-style-type: none"> <li>• Energy availability in Rajasthan</li> <li>• Energy efficient strategies for the ceramics and glass industry</li> <li>• Latest developments in energy savings</li> </ul>
Key Speakers/ Panelists	<ul style="list-style-type: none"> <li>• <b>Mr Swapan Guha</b>, President, Indian Ceramic Society, All India</li> <li>• <b>Mr Sunil Arora</b>, Principal Secretary – Industries, Government of Rajasthan and Chairman – RIICO</li> <li>• <b>Mr R Rajagopalan</b>, Senior Vice President, Carborandum Universal Ltd</li> </ul>
Highlights	<p><b>Mr Swapan Guha</b> in his opening remarks stated that reliable power is critical in glass and ceramics industry. The cost of energy is a significant proportion of the total cost of manufacturing ranging from 20 to 35 % depending upon the type of process, technology and plant capacity.</p> <p>Mr Guha also stated that the growth of the industry would depend on gas linkage and Rajasthan should take an initiative by providing the entrepreneur with an efficient gas grid.</p> <p><b>Mr Sunil Arora</b> in his special address stated that industry requires not only quality but also uninterrupted power as any interruption in power supply, particularly in large scale glass industry, leads to heavy production losses. Any interruption in energy supply in ceramics unit leads to either total rejection of batch or substantial loss of quality.</p> <p>Solar energy would become a big energy source in Rajasthan. However, a lot of development would depend on large scale manufacturing of photovoltaic material which is the key ingredients for solar energy.</p> <p><b>Mr R Rajagopalan</b> while presenting his key note address touched upon investments in research and technology for energy saving.</p> <p>He mentioned that the float glass industry, in particular, has made remarkable contributions to energy saving in both glass and ceramics</p>

	<p>industries. Advancement in material used in furnace construction, innovation in design and continuous improvement through manufacturing excellence has led to energy saving.</p> <p>Mr. Rajagopalan also explained that products manufactured by the glass and ceramics industry were 100 percent recyclable and not hazardous to health. The industry recycled all its internal rejections.</p> <p><b>Mr Swapan Guha</b> presented the formal vote of thanks and summarized the key discussion points by stating that energy was a key input and constituted a substantial portion of cost of production. Therefore, issues related to energy availability, efficient use of energy and energy pricing are crucial determinants of the competitiveness of the ceramics and glass industry.</p>
Key Takeaways	<ul style="list-style-type: none"> <li>• To ensure uninterrupted power supply remains critical to the ceramics and glass industry.</li> <li>• Provision of the gas grid in Rajasthan is crucial to ensure cheap availability of energy. The piped gas line facilities in the ceramics hub at Ghilot would significantly improve the energy supply situation.</li> <li>• The photovoltaics currently imported are very expensive and unless its manufacturing starts in the country solar energy would not be able to get the desired boost.</li> <li>• High sulphur content HFO increases the pollution levels. Hence the industry looks forward to source HFO with low sulphur content. However Natural gas is an ideal source of energy, environment friendly and cost effective.</li> </ul>
	<p><b>Session 1 – Technological &amp; Advanced Solutions for Energy Conservation</b></p>
Issues Deliberated	<ul style="list-style-type: none"> <li>• Technological solutions for a better energy conservation scenario</li> <li>• Improvement in refractories as an energy saving solution for the ceramic industry</li> <li>• Efficiency of economical firing</li> </ul>
Key Speakers/ Panelists	<ul style="list-style-type: none"> <li>• <b>Mr R Rajagopalan</b>, Senior Vice President, Carborandum Universal Ltd</li> <li>• <b>Mr Ranjan Dey</b>, Carborundum Universal Ltd</li> <li>• <b>Dr Helmut Hansen</b>, Managing Director, Germany Kiln Technology, India</li> <li>• <b>Mr K K Mitra</b>, Senior General Manager, (Marketing &amp; Technology), Lloyd Insulations India Ltd</li> <li>• <b>Prof B Pitchumani</b>, Prof – Particle Science &amp; Technology, Deptt of Chemical Engineering, IIT Delhi</li> </ul>
Highlights	<p><b>Mr R Rajagopalan</b> chaired the Panel Discussion to deliberate on technological solutions for a better energy conservation scenario. He also</p>

touched upon the availability and cost of energy sources.

He briefly mentioned that energy cost constitutes 18 – 20 % of the total manufacturing cost and makes up for 8 – 10 % of the sale price of the product.

The cost of energy prices are going up for e.g. gas and oil. This has put the ceramics and glass manufacturers on the toes.

**Mr Ranjan Dey** shared his views on improvement in refractories as an energy saving solution for the ceramic industry. He described energy conservation, cycle time reduction and value added products are the driving force behind the improvement of kilns. He also explained the processes involved in energy efficiency for refractories for kiln, kiln car and kiln furniture.

A decrease in consumption of dense refractories and an increase in the use of insulating bricks or ceramic fibers and insulating boards, to save energy, has been increasing, he added.

**Dr Helmut Hansen** emphasized on efficiency of economical firing. He stressed upon carrying out a careful analysis to understand the investment costs and possible outcomes associated with the different options of energy conservation.

He cautioned that not all ideas make sense to install. A quantitative as well as the qualitative assessment of different energy saving strategies needs to be considered carefully.

Investment costs need to be looked at with corresponding savings in running costs.

**Mr K K Mitra** listed out benefits of fibre lining as thermal efficiency & fuel savings, ease of installation, thermal shock resistance, increased productivity and energy savings.

He also briefed upon the Supercera Ceramic Fibre Lining. It provides sound economic justification with respect to reasonable investing, lowest energy consumption, reduces the cost of production, low thermal mass lining, reduces the structural cost and enhances the furnace productivity, he said.

He also stated that Supercera has become an Industry Standard for Furnace lining upto 1425 deg.C and finds application in ceramic industry, iron & steel industry, hydrocarbon industry, automotive industry and power plants.

**Prof B Pitchumani** pointed out that industry should interact with academic, research institutions to look at projects on specific problems in

	<p>industry.</p> <p>He also suggested that R&amp;D should be focused in large industries, with R&amp;D centers located at places with large mineral deposits. Consortium of industry and institutions with facilities for R&amp;D and regular Industry and Institution interaction, are essential he emphasized.</p>
Key Takeaways	<ul style="list-style-type: none"> <li>• Cheap availability of energy resources is crucial to the development of the ceramics and glass industry.</li> <li>• Need of energy saving being one of the topmost priorities today, most of the ceramic industry has changed the refractory usage in the Kiln, Kiln car and kiln furniture.</li> <li>• More and more usage of light weight material e.g. insulating bricks, insulating boards and ceramic fibers etc., to save energy should be considered.</li> <li>• Innovative developments taken place in the arena of kiln &amp; kiln car lining and kiln furniture material include low density insulating bricks with higher strength, inter-locked insulation bricks, ultra-light weight kiln furniture and flexible ware loading system and ceramics rollers.</li> </ul>
Participants	<p>The session was attended by 63 representatives, comprising CEOs and senior executives from ceramics and glass industry, engineers, academicians and policy makers across the country as well as abroad.</p>