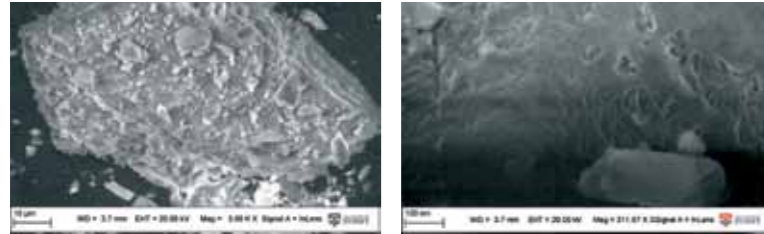


ACTIVE PORTLAND CEMENT ADDITIVES

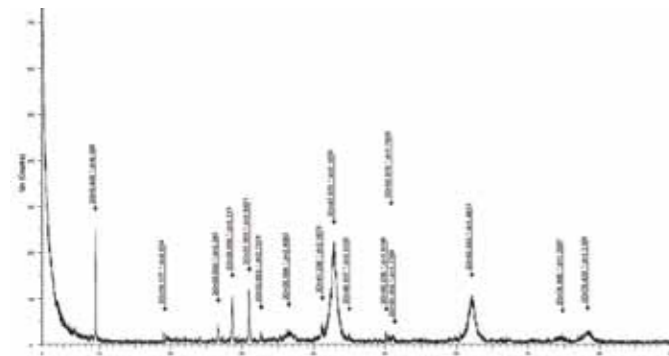
The most important technical property of an additive is its ability to enhance the properties. Calix produces highly active magnesite with a surface area of about 160 m² per gram. This is illustrated in the Scanning Electron Microscope images.

At the 10 micron scale, the image shows a large calcined particle surrounded by small grains produced by decrepitation induced by the CFC. A distribution of grain sizes assists in the production of strong cements.



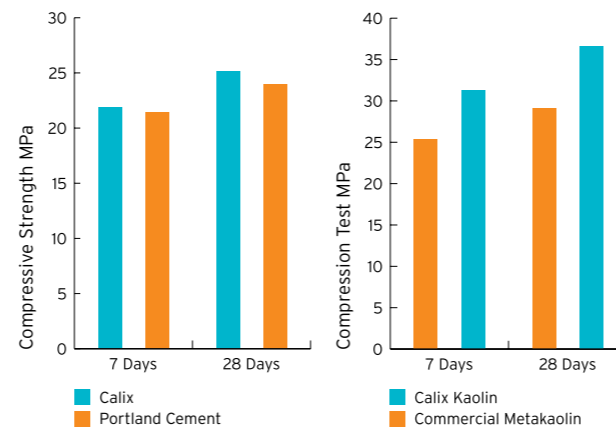
At the 100 nm scale, the image shows the micropores produced in the material by the calcination. This porosity leads to a large surface area of the particle so it is better able to interact with the cementitious matrix of the OPC to improve the cement strength and ultimately, for the residual particle to be bound by this matrix. The data shows that the CFC process increases the surface area of the particle by a factor of 30-50 as measured by different techniques

Surface Areas (m ² gm ⁻¹)	BET	BJH
Magnesite	2.9	3.2
CFC Magnesia	111	160



CEMENT PERFORMANCE

Mixtures of OPC and sand with both Semidolime™ and Metakaolin produced using Calix technology were set in blocks. The strength measurement of the blocks made in accordance with industry standards, and several results are shown in the Figures.



These, and other results, suggest that a business focus for Calix may be the provision of CFC calciners to OPC manufacturers to produce additives that both improve the OPC performance and significantly reduce the environmental impact of OPC.



HIGHLIGHTS

- INVESTMENT IN CALIX TO DRIVE GROWTH
- CALIX FLASH CALCINER TECHNOLOGY
- FUTURE CEMENT AND CALIX

INVESTMENT IN CALIX TO DRIVE GROWTH

Calix is pleased to announce that it has entered into an agreement with entities associated with Och Ziff Capital Management Group LLC, a leading global institutional asset manager with approximately \$29.4 billion of assets under management as at 1 September 2011, and Washington H. Soul Pattinson & Company Limited, an existing institutional investor in Calix, whereby they will initially invest \$30.0 million by way of subscribing for convertible bonds and warrants.

The investors will have the opportunity to invest up to a further \$24.6 million by subscribing for additional convertible bonds and warrants and exercising the warrants over the next two years.

Certain elements of this agreement are subject to shareholder approval. Details of this agreement are provided in the Notice of Extraordinary General Meeting.

This external validation of Calix and its technology represents a significant milestone for the company. The proceeds of this investment will be used to secure Calix's future business plan and drive commercialisation of Calix's technology.

The Board has committed as part of the transaction to pursue its IPO strategy within two years. This will allow sufficient time for market conditions to improve and for Calix to pursue contracted opportunities to further develop the company's technology.

FLASH CALCINER TECHNOLOGY

Calix has developed a revolutionary patented technology which can capture carbon emissions from calcination and power generation processes. Calcination, in its simplest form, is the process of applying heat to a mineral so as to change the chemical properties of that mineral. The result is that the calcined mineral becomes chemically reactive and this reactivity can be used to make various products and industrial processes.

Calix's Flash Calciner is a proven technology that provides a significant enhancement to conventional calcining techniques. It enhances mineral performance and creates unique calcined end products which are unable to be formed using conventional calcination processes. The process also minimises the environmental impact while calcining. Calix's calcined products are generally highly reactive and have diverse applications in large global markets including building products, fertilisers and soil stabilisers.

The Flash Calcining technology is currently in operation at Calix's Bacchus March Plant in Victoria. Based on the same technology, Calix has also designed the Endex Reactor system which can extract carbon dioxide from an industrial fuel gas stream (such as methane or syngas). This process is of high value to power generators because of its low energy penalties. Calix believes that the Endex Reactor technology will be the new standard for future gas or coal fired power plants as these power stations will increasingly need to be carbon capture capable. Calix's technology is a market leader in providing a commercially viable carbon capture system.

Calix's technology also has the capability of converting coal (including brown coal) into synthetic natural gas (methane) or syngas. The process may then also further transform these gases to hydrogen by removing carbon dioxide.

FUTURE OF CALIX

Calix has a growing domestic and international presence and has a pipeline of potential contracts with a number of reputable industrial and power generation companies. Calix has a number of immediate and achievable revenue generating business targets including:

- Upgrade the existing calciner plant at Bacchus Marsh;
- Develop a larger scale calciner plant at Bacchus Marsh; and
- Constructing an Endex Reactor demonstrator and a coal to methane gasification plant in Victoria.

Calix has an adopted business model which will drive commercialisation of its technology in strategic areas and markets. While the overall applications for the Calix technology are vast, the Board believes that this targeted approach is deliverable and appropriate.

DELIVERED BY CALIX

Calix is proud of its track record in delivering value to its shareholders and customers. Since Calix's 2010 capital raising event, the Company has delivered for its shareholders:

- A successful flash calciner at Bacchus Marsh, Victoria capable of calcining Dolomite, Magnesite, Limestone, Bauxite, Quartz or Silica, Lignite or Coal, Gypsum, Phosphate Rock and Kaolin
- Successfully tested to validity of calcining various minerals using flash calcination;
- Successfully tested to validity of coal drying using flash calcination;
- Successfully tested to validity of coal gasification.

Calix has successfully used its newly constructed calciner at Bacchus Marsh to show that is possible to flash calcine the following minerals:

The Company believes that it is uniquely positioned to capitalise on a market niche for calciners, calcined products and carbon capture products such as the Endex Reactor technology.

Further, Calix will use the recent additional investment funding, to finalise deals to sell calcined products and/or calciners to its customers over the upcoming years. Calix has a proven and patented clean technology platform with versatile applications in diverse multi-billion dollar markets.

Calix has also delivered many improvements to: stakeholder accountability; improved corporate governance; and improved internal review policies.

FUTURE CEMENT AND CALIX

Calix uses its proprietary Catalytic Flash Calcining (CFC) systems to produce a range of binders and additives for cement formulations. These products are made by processing minerals such as:-

- Limestone
- Dolomite
- Magnesite
- Kaolin
- Gypsum
- Bauxite

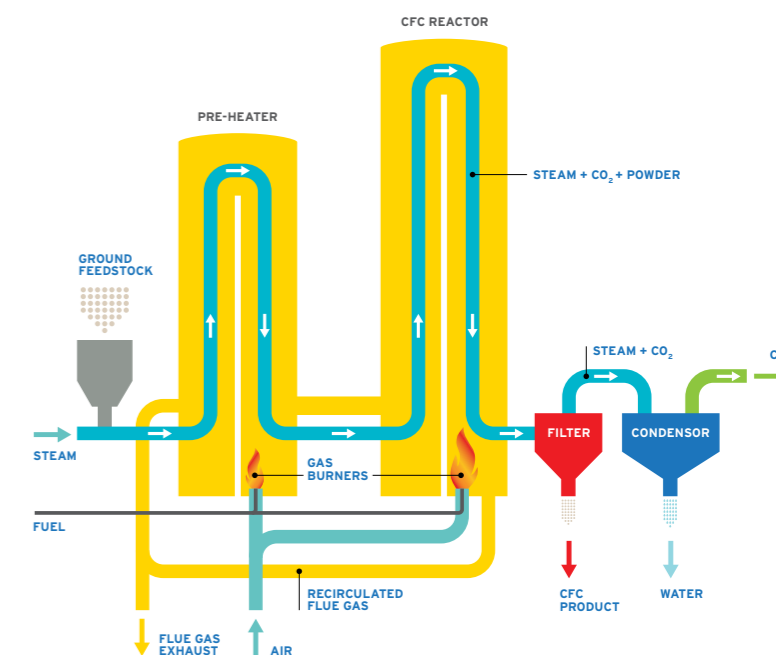
The CFC process uses steam as a catalyst for the production process, which speeds up the calcination process ensuring that Calix calciners are compact. The steam is also an agent for transferring heat and transporting the solids through the calciner.

An important differentiating feature of the CFC process is the use of indirect heating, which ensures that high purity products are not sullied by impurities from combustion. In the case of calcined carbonates, the product gas stream is at least 98% pure CO₂. This CO₂ can be sequestered for climate change mitigation, sold as an industrial product, or used in the production of Calix lightweight panels.



THE CFC PROCESS

In the CFC process, minerals are typically pre-ground to less than 150 microns in preparation for calcining. These are entrained in the steam for injection into the calciner, in which the calcination takes place. Calcination is complete within the several seconds it takes for the particles to move through the reactor. The particles are filtered from the gas stream cooled, and packaged. The steam is condensed and recycled.



CEMENT INDUSTRY CARBON FOOTPRINT

The cement industry is under intense pressure to reduce its carbon emissions, and Calix technologies can assist in that transformation. Most cement is produced as Ordinary Portland Cement (OPC), and is responsible for 4-8% of mankind's CO₂ emissions.

One way to reduce the emissions from OPC is to substitute a portion of the OPC by a material with a lower carbon footprint product, preferably one which adds value to cement by way of strength, setting time and cost. In this aspect, Calix has developed additives such as Magnesia, Semidolime™, Metakaolin and Gypsum Hemihydrate for OPC enhancement. The results presented in this paper demonstrate that the materials produced in the CFC process have the required properties.

Another way to reduce the emissions from OPC is to make alternative cement binders as a replacement for OPC in niche applications. Calix is developing such products, and will report these studies in forthcoming presentations. These are primarily focused on the use of CFC Magnesia and Semidolime™ to make products that compete with Magnesia Board formulations for indoor and outdoor panels.