Construction and Building Material - 2357

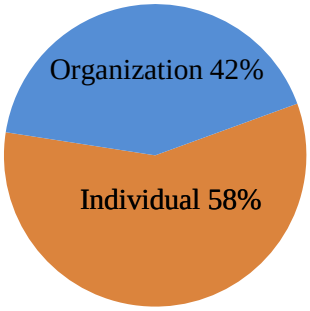
Recommendation: Strong Buy

# SONG DA CAO CUONG JSC

# COMPANY REPORT

*(Free translation)*

**POSSESSION STRUCTURE**




**SHARE INFORMATION**

| | |
|---|---|
| Ticker | SCL |
| Exchange counter | HNX |
| Market Value (Bil VND) | |
| Share outstanding | 9.000.000 |

## INVESTMENT OVERVIEW

- *SCL is a sole company in Vietnam which produces fly ash from coal slag of thermoelectric plant owing to its advantaged location and unique production technology. The dried fly ash, used as an additive for roll-compacted concrete works, brings the company an impressive gross profit margin of 55-57%;*
- *The dried fly ash of SCL affirmed its preeminence in quality and price in comparison with imported product. The product is being used for huge hydropower projects such as Son La and Lai Chau;*
- *Not only being an additive for concrete, dried fly ash is also applied in producing cement, gypsum and particularly unbaked brick;*
- *SCL will pioneer in producing autoclaved aerated concrete (AAC) brick with dried fly ash as the major material. From early 2011, AAC brick is expected to become a key product of SCl in terms of revenue and profit;*
- *The demand of unbaked brick is strongly increasing owing to its preeminence and government supported policies. With an absolute advantage in the material source of cheap wet fly ash, AAC brick factory project will bring significant efficiency for the company after launching;*
- *SCL is to be received preferential policies of the Government and localities as an incentive to its efforts in developing new material lines.*

**Table 1: SCL's operating results** *Unit: VND bil*

| Year | 2007 | 2008 | 2009 | 6M. 2010 | 2010F |
|---|---|---|---|---|---|
| Net revenue | 19.0 | 138.4 | 73.2 | 68.0 | 145 |
| Gross Profit | 9.9 | 79.3 | 39.8 | 38.7 | 82.5 |
| Pre-tax profit | 2.4 | 36.4 | 16.3 | 18.4 | 36 |
| Business income tax | 0 | 0 | 0 | 0 | 0 |
| Post-tax profit | 2.4 | 36.4 | 16.3 | 18.4 | 36 |
| EPS (VND) | 1,998 | 6,696 | 2,710 | 2,050 | 4,000 |

*(Source: Prospectus of SCL )*

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# COMPANY PROFILE

## BASIC INFORMATION

- Company name: SONG DA CAO CUONG JSC
- Address: No.2 – Sung Yen – Pha Lai – Chi Linh – Hai duong
- Tel: (84- 0320) 3580.414 – 3582903
- Website: www.songda12-caocuong.vn
- Chartered capital: VND 90 billion

## MAIN BUSINESS FIELDS

- Exploiting, producing and doing business in additive for roll-compacted concrete and cement (fly ash of the Pha Lai Thermoelectric JSC).
- Producing and purchasing active coal, pine oil, diesel and FO.
- Processing minerals (rocks, ores, coal, sand, clay and kaolin)
- Producing and purchasing construction materials.

## SHAREHOLDERS STRUCTURE

According to corporate legal person (May 31,2010)

| No. | Shareholders' name | Possession ratio (%) |
|---|---|---|
| 1 | State shareholder | - |
| 2 | Domestic shareholder | 100 |
| | *- Individual* | *58* |
| | *- Organization* | *42* |
| 3 | Foreign shareholder | - |
| | *- Individual* | - |
| | *- Organization* | - |
| | **Total** | **100** |

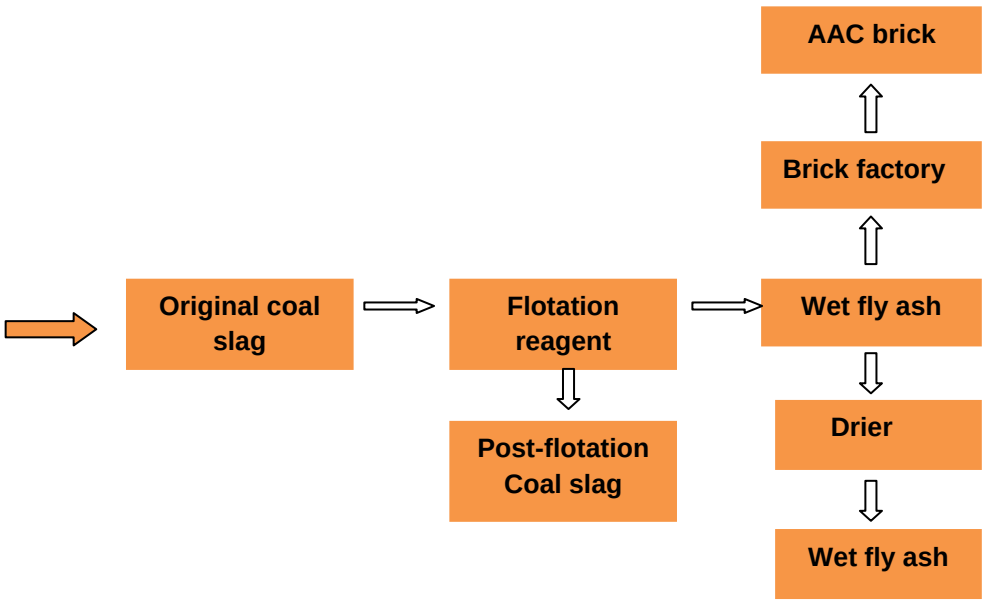
*( Source: prospectus of SCL )*

List of big shareholders (May 31,2010)

| No. | Shareholders' name | Possession ratio (%) |
|---|---|---|
| **1** | Cao Cuong Service Industry JSC | 14,78 |
| **2** | Song Da 12 JSC | 12,63 |
| **3** | Licogi 16.6 Company | 5,94 |
| **4** | Petro Waco Property JSC | 5,27 |
| | **Total** | **38,61** |

## II. PRODUCTS IN THE VALUE-ADDED CHAIN OF SCL

### SCL value-added chain




SCL processes the original coal slag discharged from Pha Lai thermal power plant to produce a valuable product chain of wet fly ash, dried fly ash, selected charcoal and SCL is deploying Phase I of AAC brick project which uses wet fly ash as major material to produce AAC brick. This factory is scheduled to be launched in early 2011.

### Fly ash

***Fly ash*** is an additive for roll-compacted concrete, high-quality concrete, self-compacted concrete and sulfate-resisting concrete, used for producing unbaked brick. Fly ash consists of two types: dried fly ash (moisture ≤ 3%) and wet fly ash (moisture ≤ 22%).

***Dried fly ash***

A special additive for concrete can replace 22% amount of cement. Due to its fine structure, fly ash increases the viscosity of the mortar and helps with decalcification in cement. Especially, for big concrete blocks for hydropower dams, adding fly ash enables workers to do concrete work in chunk as opposed to doing it nonstoppably.Recently, to enhance the economic effectiveness for the construction of hydropower dams, most projects in the world and Vietnam apply the roll-compacted concrete (RRC) technology instead of normal concrete technology. Thus, fly ash is an indispensible additive in the construction of

hydropower dams.

It is noticeable that prior to the introduction of SCL's product, fly ash used to be imported at a higher price while having low and uncontrollable quality. From late quarter II of 2008, the fly ash product of SCL has been granted a certificate of being product in accordance with the ASTM C618-00 standardized by USA.

- ***Wet fly ash***: to produce concrete brick, wall ceiling tile…

## Post-flotation coal slag

**Post-flotation coal slag** (also called fired clean coal slag) is a by-product from the fly ash production process. This product is used in light industry, producing coke, active coal and coal for daily activities.

## Autoclaved aerated concrete (AAC) brick

- **AAC brick** is a light construction material commonly used in the world (accounting for 70-80% of construction brick), particularly for high-rise buildings. Currently, in the world, there are two types of light concrete brick of aerated concrete and foamed concrete. The two types are produced by different technologies; however, the production of aerated concrete accounts for a larger proportion owing to its more preeminence on the stability of quality, weight and smaller volume.
- **Material for producing aerated** concrete brick includes wet fly ash (or high-olden sand), flour limestone, gypsum and aluminum powder. Fly ash can replace a partly cement and is the largest proportion component of aerated concrete brick.

**Table 2: Material and fuel structure for 1m3 of concrete brick**

| No. | Material, fuel | Unit | Cost for $1m^3$ |
|---|---|---|---|
| | **Production of concrete brick** | m3 | |
| **1** | **Wet fly ash** | Kg | **330.0000** |
| 2 | Cement | Kg | 55.0000 |
| 3 | Limestone | Kg | 95.0000 |
| 4 | Gypsum | Kg | 15.0000 |
| 5 | Aluminum powder | Kg | 0.5500 |
| 6 | Fired coal | kg | 18.0000 |
| 7 | Machine oil applied for mould | Liter | 0.5000 |

*(* Source: *Prospectus of SCL )*

- **Preeminent features of aerated concrete brick**
  - Be clean for environment; hardly obstruct traffic and material gathering.
  - Reduce construction cost from 7-10%
  - Speed up the construction progress
  - Have high temperature isolation capability, thus making the house warm

in winter and cool in summer.

**Table 3: Basic parameters of concrete brick**

| Description | Unit | Concrete brick | Baked clay brick |
|---|---|---|---|
| **Physical properties** | | | |
| Wet weight | kg/m3 | 560 | 1150 |
| Compression strength | kg/cm2 | 40-60 | 40-80 |
| Bending strength | kg/cm2 | 6-8 | 6-9 |
| Water absorption degree | % | 30 | 12-20 |
| **Sound isolation** | | | |
| 10 cm | Decibel | 43 | 30 |
| 20 cm | Decibel | 50 | 38 |
| **Temperature isolation** | | | |
| Coefficient of heat conductivity | Watt/m.K | 0.13 | 1.15 |
| **Fire-proof** | | | |
| 10 cm | h | 4 | 1-1.5 |
| 20 cm | h | 4-8 | 1.5-2 |

*(Source: E-block, R&D BSC)*

**Table 4: Comparison of aerated concrete brick and Baked brick**

| No | Description | Aerated Concrete brick | Baked brick |
|---|---|---|---|
| 1 | **Technology** | Applied with the European advanced concrete technology and produced in a modern chain | Applied with out-of-date technology, baked in manual furnace or tunnel and produced manually |
| 2 | **Material** | Fly ash – an abundant material resource | Clay – unrecovered natural resource |
| 3 | **End-product** | End-product's volume doubles material's volume | End-product's accounts for 55%-65% of material's volume |
| 4 | **Production process** | Less waste products (recycled waste products )<br>No smoke or poisonous gas emission<br>Saving energy from 20-30% | More non-recycled waste products<br>CO2 and SO2 emission, thus polluting environment and badly affecting people's health.<br>Not saving energy |
| 5 | **Execution** | High accuracy, saved mortar, simple execution , no requirement of skillful workers<br>No need of plastering two sides. Reduce 20-30% of complete wall cost s | Much mortar, high loss, complicated execution , requirement of skillful workers<br>Need of plastering two sides |

| | | | |
|---|---|---|---|
| | | Quick execution, executive time is equal to 1/5 that for baked clay brick | Slow execution, need of many workers |
| 6 | **Use process** | Maximum saved electricity (or heating). It can save 40% of cooler's energy<br>Good sound isolation<br>Good fireproof<br>Flame proofing material, not creating poisonous gas in fire<br>High durability, | Much spent energy for cooling and heating due to high electric conductivity<br>Poor sound isolation<br>Poor fireproof<br>Inflammable material , creating poisonous gas in fire<br>Low durability |

*(Source: E-block, R&D BSC)*

### Conclusion on the SCL value-added chain

- From the industrial waste of the thermoelectric plant as the input, through processing, SCL has created a value-added chain of wet fly ash, dried fly ash and the upcoming concrete brick product. In each processing stage, the preceding product is the input of the following one and the following product has higher value than preceding one. Each product in the chain has its own market.
- At present, dried fly ash is bringing the biggest benefit for SCL but its demand is expected to be stable in the coming time. On the contrary, the demand for AAS brick is expected to increase strongly. The investment in the aerated concrete brick factory is deemed a right orientation.

## III. MARKET PROSPECT FOR FLY ASH AND AAC BRICK

### Supply and demand of fly ash

Fly ash is currently used as an additive to RCC concrete for hydropower plants, dams or water resources constructions. Additionally, it is used as a major material for producing AAC (Autoclaved Aerated Concrete).

***Dried fly ash as an additive for RCC concrete is expected to be highly demanded in the foreseeable future.*** As the government plans to increase the total hydro power generations to 13,000 – 15,000 MW by 2020, a great number of hydro power plant constructions will be started accordingly. Following Son La hydro power plant construction are other big hydro power plants such as Lai Chau, Ban Chat, Dong Phu Yen and Xekaman hydro power plants, to name but a few. In addition to being used as a material for hydro power plant construction, RCC is also used for large dam constructions. Moreover, dried fly ash is used as an additive in normal concrete for civil construction.

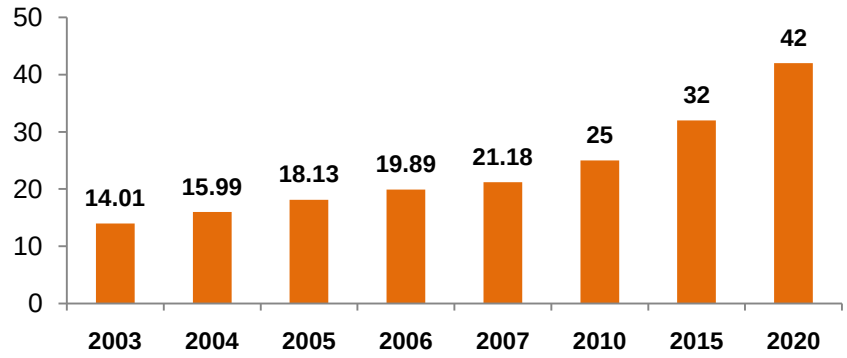
***SCL is the sole supplier of dried fly ash producing on large scale in Vietnam and sells at a premium.*** Before SCL's dried fly ash entered the market, most hydropower

plant and irrigation dam construction contractors had to import dried fly ash the quality of which is inconsistent. Since entering dried fly ash market in 2008, the product of SCL has replaced most import substitutes and seized a market share of 80%.

## Supply and demand of construction brick

***Demand for bricks is accelerating in line with the speed of urbanisation.*** Annual statistics and the master plan for developing construction material industry show demand for construction brick is increasing in Vietnam. The demand was 14 billion bricksbefore it has nearly doubled in 2010 reaching around 25 billion bricks and is expected to top at 42 billion bricks by 2020.

**Chart 1: Demand for construction brick**




*(Source: R&D BSC)*

***Vietnam's construction brick market is mostly dominated by baked bricks produced by numerous factories scattered alongthe country.*** Currently, the supply of clay – the main material for baked brick, is abundant. However, baked brick manufacturers will soon see limited supply of clay in the near future. Worse yet, most of the factories are causing pollution problems. According to unofficial statistics, given the current growth rate of baked brick production, a considerable area of arable land is going to be lost as it will be converted to material for baked brick.As a consequence, the cost and price of baked brick will gradually pick up in the near future.

## Supply and demand of AAC

***Non-baked bricks, substitutes of baked bricks, have set a global trend in both consumption and production of bricks andit is unlikely that this trend will bypassVietnam.*** Demand for non-baked construction material accounts for 60% of the total construction material worldwide**.** Meanwhile, the proportion is only10% in Vietnam. According to the government's master plan for developing non-baked material (Decision 567/QD-TTg), the ratio of non-baked construction material to total construction material will reach approximately 20 – 25% by 2015 and 30 – 40% by 2020. More specifically, the ratio of AAC to non-baked bricks is expected to reach 16% by 2015 and 20% by 2020. Notably, since 2011, the proportion of light non-baked construction material must account for at least 30% of the total amount of

construction material for buildings of 9th or taller. Demand for AAC brick is expected to reach 1.1 – 1.3 billion units by 2015, equivalent to 1,100,000 – 1,300,000 $m^{3,}$ respectively.

***Non-baked bricks are a new trend of building materials in Viet Nam, especially in pioneering projects***. With preeminent characteristics such as environmental protection, reducing the load thereby reducing construction costs, increased sound proofing; and no higher pricethan baked-bricks, non-baked bricks are the new choice for pioneering projects.

***The construction of non-baked brick factories is in progress, but consumption has been guaranteed***. Some plants use quartz sand as raw material to produce non-baked bricks but have not yet achieved success because of the unstable quality of materials. With its stable quality, fly ash ensures the success of SCL's ligh AAC brick project

## Preferential policies

To substitute non-baked bricks for baked brick is a content in the government's goal in restructuring the ceramic materials manufacturings. Therefore ligh AAC brick projects receive many government incentives such as corporate income and environment tax exemption and reduction, as well as access to bank credit with preferential interest rates, etc.

## SCL's position in construction and building materials industry

Surveyof 165 enterprises in the construction and building materials industry listed on two stock exchanges (HSX and HOSE) shows that average market cap is VND 265 billion, equity is VND 141 billion, asset growth is 26%; sales growth is18.7%; ROA, and ROE reach respectively 4.1% and 17.1%. Average gross margin is lower than other sectors (15%). Companies in the sector use financial leverage more intensive than those in other sectors

Compared to its peers, SCL is medium in scale butenjoys higher profit margin, ROA, ROE industry bench mark. SCL uses less financial leverage than the others. We will explore this with more depth in latter sections.

**Table 5: Industry Statistics**

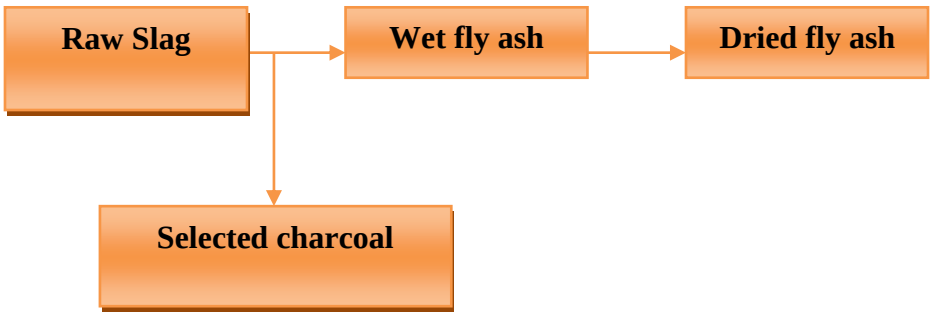
| Indicators | Value (VND Bil) | Average |
|---|---|---|
| P/E | | 11 |
| P/B | | 1.88 |
| Market Capitalization | 43,867 | 265 |
| Total asset ( VND Bil) | 97,537 | 591 |
| Equity ( VND Bil ) | 23,304 | 141 |
| Assets' Growth (%) | | 26.42 |
| Sales' Growth (%) | | 18.77 |
| ROA (%) | | 4.1 |
| ROE (%) | | 17.1 |

| | | |
|---|---|---|
| Gross margin | | 0.15 |
| Debt/Equity | | 3.04 |

*(Source :R&D BSC)*

## IV. CORE BUSINESS ACTIVITIES

### PRODUCTION PROCESS




| Input | Output |
|---|---|
| ▪ 1.538 ton of slag | ▪ 1 ton of wet fly ash<br>▪ 0,461 ton of selected charcoal |
| ▪ 1.28 ton of wet fly ash | ▪ 1 ton of dried fly ash |

**Fly ash factory**: is the only factory which is generating revenue and profits for the SCL.The 1.5 hectare factory, located in an area of 5 hectares at Bac Binh Giang waste slag lake, is funded with a total investment of VND 65 billion from owner's equity. . The factory was officially launched in December2007 with a capacity of 400 thousand tons of wet fly ash and 300 thousand tons of dried fly ash per year with three shifts per day.

### Main materials:

- Raw slag from PPC is the major material for fly ash production. Source of the material is abundant, stable and riskless. Each year, PPC emits about 1.3 million tons of slag, far greater than the capacity of SCL of 769,000 tons per year.

Should PPC stop discharging Bac Binh Giang effluent reserveslake, SCL can maintain its operation at the in ten of years existing plant capacity. Prior to SCL's fly ash operation, this waste material polluted the environment and was almost worthless. SCL has signed a "Memorandum of Agreement principles" with PPC to fully consume this waste at a negligiblenominal cost per product unit.

### Minor materials:

BK 201 oil used for refining, Diezen, package.

Overall, the input raw materials are conventional, provided by trustedpartners at

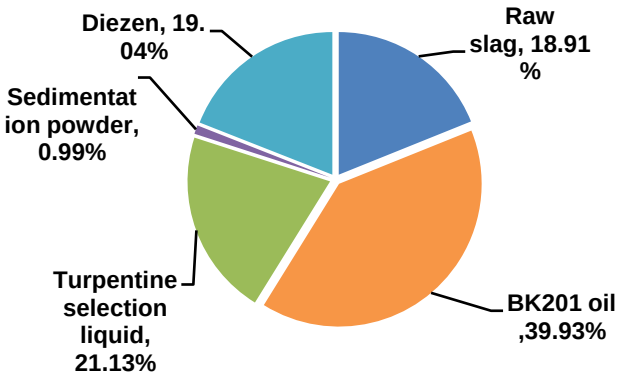
stable prices, except diesel oil, the price of which is quite volatile. However, the proportion of this fuel is quite low.

**Table 7: Diesel price movement**

| Fuel | Year 2007 | Year 2008 | Year 2009 | Q1.2010 |
|---|---|---|---|---|
| Diesel | 10,130 | 11,950 | 13,050 | 14,250 |

*(Source: Song Da Cao Cuong JSC)*

**Graph 2: Wet fly ash's major component price proportion**

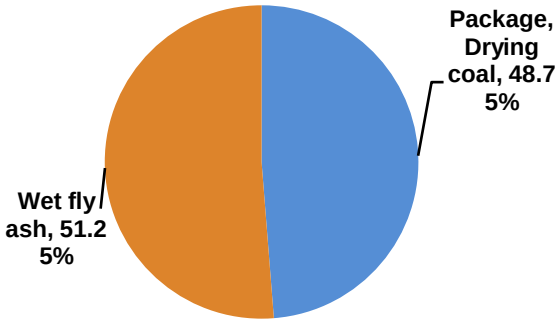



*(Source: Song Đa Cao Cuong JSC)*

***In summary***, the major material to produce fly ash is raw slag but accounts for a relatively small proportion in cost structure which is due to the Company's advantage mentioned above.

**Dried fly ash is created from wet fly ash:**

**Graph 3: Dried fly ash's major component price proportion**




*(Source: Song Da Cao Cuong JSC)*

**Technique of employing charcoal in producing fly ash:**

It is a process of three frequent stages; including "Selecting wet charcoal –

condensing liquid fly ash –fly ash in butterfly-wings furnace".

- **Selecting wet charcoal:** As ash dash is of very small in size, using wet charcoal selecting techniques stabilizes the desired ratio of solid/liquid in the material solution, thereby reduce cost and stabilize product quality.
- **Condensing liquid fly ash by using adjuvant glue**: Condensing wet selected charcoal by using a natural adjuvant (i.e. glue in this case) is an economic solution for SCL in improving productivity while its capacity stays uunchanged; i.e. fixed workspace, no supplementary equipment, and low COGS.
- **Drying fly ash in butterfly-wing furnace:** limits the volume of fine-grained products flying into ash filters, and help products to be dried easier. As a result, the technique enhances productivity, saves fuel for dried stage, and generates a product recovery rate as high as 95%. It is a crucial stage in the process of producing fly ash that helps SCL to stay ahead of its competitors (the majority of whom fails in manufacturing dried fly ash on industrial scale).

## Assessment of profitability of fly ash factory through examining gross profit

SCL's fly ash factory project has operated for just 02 years but has yielded a gross profit margin of 55-57%, which is quite high compared to that of other companies in construction material sector. In our opinion, the exceptional profitability can be attributed mainly to a stable cost structure and rather basic material inputs with little price risk.

**Table 8: Ratio of COGS over Sales**

| Cost | Year 2008 | | Year 2009 | | Q1. 2010 | |
|---|---|---|---|---|---|---|
| | Amount (VNDm) | % Sales | Amount (VNDm) | % Sales | Amount (VNDm) | % Sales |
| COGS | 59,073 | 42.7 | 33,419 | 45.6% | 18,887 | 41.9% |

*(Source: Song Da Cao Cuong JSC)*

## AAC BRICK FACTORY PROJECT

Period 1 AAC brick factory is based at Pha Lai, Chi Linh, Hai Duong with total projected investment of VND 161.4 billion and expected investment of VND 144 billion (the real amount of investment, including office building, can be less than expected), in which 33% of the amount is financed by owner's equity. The project has designed a capacity of 200,000 tons per year and operating capacity is expected to reach 100% from year 3rd. The factory is projected to operate on industrial scale commencing 2011. The major material of AAC brick is wet fly ash produced by SCL. This autoclaved aerated concrete brick factory will create a sustained demand for the output of fly ash factory.

By SCL's estimates, the light brick product will sell at VND 850 thousand per $m^3$. However, the light brick price is continuously increasing and fluctuates within a range of VND 1.2-1.4 million per $m^3$ for domestic brick and around VND 1.8 million per $m^3$ for imported products. The estimated price for SCL brick is therefore quite cautious. The cost of the project's light brick is averaged VND of 620 – 650 thousand per $m^3$ for the first 02 years and VND 600 thousand per $m^3$ for the following years. That SCL projects its cost based on the price of wet fly ash is also cautious because the cost would be lower given on the cost of wet fly ash.

## V. SWOT ANALYSIS

### Strengths

- SCL has proprietary technology in processing fly ash;
- SCL has ready access to charcoal from Pha Lai thermal power factory, which is currently the largest source of input material for fly ash manufacturing on industrial scale;
- SCL is benefited from investment stimulus policy of local and governmental authorities for its pioneer role in developing new construction material.
- Using low-cost wet fly ash, its light brick is produced a lower cost than products of other peer companies.

### Weaknesses

- The market for dried fly ash is instable;

### Opportunities

- There is a growing demand for light AAC brick;
- As a pioneer in AAC brick, SCL is able to transfer its unique technology to other firms in the sector.

### Threats

- SCL faces competition pressure from companies providing similar products. However, the Company has an ability control to low price input material so this threat is minimal.

# VI. FINANCIAL ANALYSIS

## OPERATING PERFORMANCE

### Total asset

**Table 9: Total Asset growth**

| | 2007 | 2008 | 2009 | 6T.2010 |
|---|---|---|---|---|
| Amount (VND billion) | 57.3 | 95.5 | 114.4 | 146.1 |
| Growth (%) | - | 67% | 19% | 28.1% |

*(Source: Financial statements of SDCC JSC)*

Though a newly establishment with nearly 03 years of operation, total asset is growing fast, notably in 2008. Asset growth is financed primarily by owner's equity. There is no comparable company to SCL since fly ash is a new material. However, asset scale of SCL is average compared to listed companies in construction material sector in general.

### Revenue

**Table 10: Revenue composition per product kind**

| Revenue Composition | Year 2008 | | Year 2009 | | Q2 2010 | |
|---|---|---|---|---|---|---|
| | Amount (VND b) | % | Amount (VND b) | % | Amount (VND b) | % |
| Dried fly ash | 113.9 | 82.3 | 60.5 | 82.8 | - | - |
| Wet fly ash | 0.114 | 0.1 | 0.43 | 0.5 | - | - |
| Selected charcoal | 24.3 | 17.6 | 12.2 | 16.7 | - | - |
| **Total** | **138.4** | **100** | **73.2** | **100** | **68.08** | **100** |

*(Source: SDCC JSC Prospectus)*

It should be noted that, although SCL's fly ash factory has just operated for more than two years, the ability to generate revenue was quite soon and at growing pace, in which dried fly ash accounts for the largest proportion, followed by selected charcoal. Except for the year 2009 when revenue was decreased as a consequence of the delay in several hydropower project, revenue growth in the other years remain high (revenue generated in the first half of 2010 was equal to 93% that of the whole 2009).

### Gross profit margin

As mentioned above, SCL's average gross profit margin was quite high, around 56% p.a. In fact, SCL is operating in an oriental industry producing a new kind of product that is being expected to have a high economic value added. SCL can be classified as one of the best companies generating high gross margin

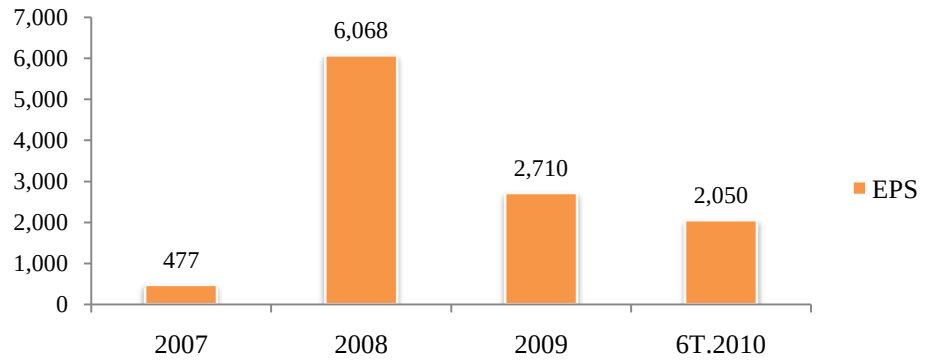
**Table 11: Gross margin from each product**

| Gross margin per product line | 2008 | | 2009 | | H1 2010 | |
|---|---|---|---|---|---|---|
| | Gross margin (VND bil) | % | Gross margin (VND bil) | % | Gross margin (VND bil) | % |
| Dried Fly ash | 66.7 | 84.2 | 32.6 | 83.92 | - | - |
| Wet fly ash | 0.85 | 0.1 | 0.2 | 0.53 | - | - |
| Selected charcoal | 12.4 | 15.7 | 6.0 | 15.55 | - | - |
| **Total** | **79.3** | **100** | **38.8** | **100** | **38.7** | **100** |

*(Source: SDCC's prospectus)*

**EPS**

**Graph 4: SCL's EPS**




Given a difficult fiscal year of 2009 caused by global economy recession and a new producer of the industry, EPS of the company increased steadily from VND 4,000 per share to VND 6,000 per share accepting for 2009 fiscal year. It's regarded a performance entrance.

It is noted that holding an efficient production technology, locating in a right zone of raw materials of Pha Lai thermoelectric plant and the special high quality of SCL's products are regarded as three dynamics factors that do help the company maintain stable profits for the next 3 years.

## EFFICIENCY - ANALYSING ROE (employing DUPONT model)

**Table 12: Employing Dupont Model**

| | 2007 | 2008 | 2009 | H1 2010 |
|---|---|---|---|---|
| *Tax burden ratio* | *1.0* | *1.0* | *1.0* | *1.0* |
| *Interest burden ratio* | *1.0* | *0.99* | *0.97* | *0.99* |
| *EBIT/Sales* | *0.12* | *0.26* | *0.22* | *0.27* |
| *Sales/Total assets* | *0.33* | *1.44* | *0.64* | *0.46* |
| *Total assets/O.E* | *1.09* | *1.19* | *1.20* | *1.08* |
| **ROE (%)** | **4.55** | **45.32** | **17.17** | **13.63** |
| **ROA (%)** | **4.16** | **38.09** | **14.26** | **12.63** |

***Note***: Since establishment, business performance was rather reached 45% in

2008 as an active example. There are some causes of those good results:

- SCL is likely a monopolist in using and buying at low price of raw material from Pha Lai thermo-electrical factory;
- SCL is enjoying a very low interest burden ratio because of low financial leverage.

In 2009, the negative effects of the Global economy's recession on Vietnam economy, SCL were faced to difficulties because of the progresses of in implementing some projects were delayed, such as hydro power plants at Ban Chat and Son La. So far, ROE decreased dramatically. However, this ratio is expected to be strongly increased in the year of 2010.

***(1) Tax burden ratio***

Since SCL is operating in an industry of developing and producing new materials, it is favored by government in paying income tax. By which, it enjoys an income tax of 0% p.a. for its first four years of earning profit; afterward, in next 9 years, it will be allowed to pay only 50% of its actual amount of income tax expense each year. Moreover, the tax rate of 10% p.a. would be applied for SCL in the first 15 years since it begins produce fly ash. Certainly, with the tax income SCL is to be enjoyed a great advantage in business operation incoming time.

***(2) Interest burden ratio***

Since its establishment, it has employed mainly its owners' equity for the operation. So, it has not been faced to difficulties of interest rate fluctuation over recent years. As a result, SCL has a low financial leverage.

**Table 13: Companies' ratios of Debt/Total assets & Debt/Owners' Equity**

| | BHV | DAC | DTC | HLY | NHC | TLT | TTC | VHL | VCS | VTS | VIT | SCL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Debt / Total assets** | 0.51 | 0.50 | 0.75 | 0.38 | 0.2 | 0.95 | 0.59 | 0.66 | 0.57 | 0.47 | 0.83 | **0.11** |
| **Debt / Equity** | 1.02 | 1.01 | 3.03 | 0.69 | 0.26 | 19.69 | 1.46 | 1.95 | 1.46 | 0.90 | 4.82 | **0.12** |

***(3) EBIT/Sales***

In 2008, SCL had a strong growth of EBIT margin as the company's sale was approximately VND 138.4 billion. However, stepping in 2009, the ratio decreased suddenly caused by the delay of some projects on hydro power plants where SCL was a main supplier of dried fly ash (such as, Ban Chat and Son La). As a result, for the economy of scale dropped. Because of an increase in fixed cost per unit, its cost of goods sold (COGS) rose up from 42.68% in 2008 to 45.63% in 2009. Hence, SCL's EBIT decreased.

**Table 14: Comparing SCL's EBIT/Sales to others**

| | BHV | DAC | DTC | HLY | NHC | TTC | VHL | VCS | VTS | VIT | SCL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EBIT/Sales** | 0.188 | 0.21 | 0.187 | 0.128 | 0.183 | 0.04 | 0.06 | 0.2 | 0.26 | 0.075 | **0.22** |

*(Source: BSC)*

***(4)Sales / Total Assets***

This ratio tended to be slightly decreased over years, especially in 2009. In 2010, the company has expanded its operation by investing in a factory of producing autoclaved aerated concrete *brick*. Details as below:

- In first half-year of 2010, SCL started to build up the factory of producing autoclaved aerated concrete brick;
- Currently, SCL has completed stages of cleaning lands for constructing, building electronic system. Equipment were being imported and set up in August, 2010;
- As plan, the factory is operating by the end of November 2010.

Hence, in this period, SCL has not made profit and its cash flows were mainly out-flows for investment. In 2009, it applied a higher leverage ratio than that in 2008 (i.e. 1.02 times compared to 0.71, respectively). This investment in the factory is expected to be successful. Therefore, SCL's efficiency is highly considerable. For next several years, SCL's sale shall be optimistic.

In Quarter 2 of 2010, SCL's ratio of Sales/Total Asset rapidly rose after a period of decreasing. In this year, SCL's sale is optimistic due to the progress of projects of hydro power plants has been supervised strictly. In first half of 2010, SCL reached a significant sale which made up 93.1% of the whole sales of 2009. Next, NPAT (Net profit after tax) also made up 113.5% of NPAT in 2009. Besides, SCL has just employed butterfly-wing furnace in drying fly ash. So, the company can deduct its COGS by 3-4%. In 2010, SCL's ratio of Sales/ Total Asset wills increase firmly.

***(5) Total Assets / O.E***

SCL remains a low leverage ratio and still employs its Owners' Equity mostly in its operations as it is low required capital for a further investment in producing fly ash. In an effort to diversified client, not only in the consumption if there is no hydro power plant, SCL developed a project of a factory of producing autoclaved aerated concrete bricks which made of fly ash. It is another source of consuming fly ash for SCL. SCL is mobilising 60% from debtors for developing the project. In 2011, the second stage of the project will be implemented. Hence, SCL's financial leverage is expected to be increased in next year.

## FINANCIAL STRENGTH

***Capital Structure***

SCL has employed a low financial leverage ratio for its operating, and its current liabilities quite small proportion in its capital structure. In 2010, the company would mobilise a higher current liabilities (i.e. around VND 90 billion) for its investment in setting the factory of producing autoclaved aerated concrete bricks.

**Table 15: Capital Structure**

| Capital Structure | 2008 | 2009 | H1 2010 |
|---|---|---|---|
| + Total Debt / Total Assets | 0.16 | 0.17 | 0.074 |
| + Total Debt / Equity | 0.19 | 0.2 | 0.079 |

***Liquidity***

Liquidity ratio was much higher than its industry average. In first half of 2010, the ratio was decreased by chartered capital increase.

**Table 16: Liquidity**

| Liquidity | 2008 | 2009 | H1 2010 |
|---|---|---|---|
| + Current ratio | 2.25 | 2.43 | 7.20 |
| + Quick ratio | 0.83 | 1.23 | 4.83 |

***Operating Ratios***

SCL's operating ratios showed that the company has had an acceptable efficiency from its current resources. Its inventory turnover showed that SCL could meet its client's demand for fly ash. Moreover, SCL also had a reasonable process of "purchasing materials – Selling products – Receiving in cash". It helped SCL remain an appropriate working capital, and can be. In fact, unlike almost manufacturing firms, SCL

Hence, it is one of SCL's advantages, by which the company is able to be active in its operations.

**Table 17: Operating Ratios**

| Operating ratios | 2008 | 2009 | H1 2010 |
|---|---|---|---|
| + Inventory turnover | 2.74 | 1.50 | 1.21 |
| + Receivable turnover | 13.92 | 4.48 | 2.91 |

***Profitability***

In 2009, SCL's profitability decreased noticeably. It was due to the delay in operations of the projects (such as, Ban Chat hydro power plant). Since 2010, its profitability is expected to be much higher. For example, in first half of 2010, SCL's net profit was VND 38.7 billion, i.e. 13.5% higher than that in 1H 2009. For whole year of 2010, SCL's profitability would be grown sharply in consequence of completing the hydro power plants on time.

**Table 18: Profitability**

| Profitability (%) | 2008 | 2009 | H1 2010 |
|---|---|---|---|
| + Net profit margin | 26.3 | 22.2 | 27.1 |
| + Operating margin | 26.3 | 22.2 | 27.3 |
| + NPAT/Equity | 45.3 | 17.2 | 13.6 |
| + NPAT/Total Assets | 38.1 | 14.3 | 12.6 |

## VII. FORECAST OPERATING PROFIT IN 2010

In 2010, SCL plans to provide fly ash for the hydropower project with quantity as below:

**Table 19: Plan of supplying fly ash and cleaned charcoal in 2010**

*Unit: Ton*

| Hydropower plant project | QI | QII | QIII | QIV |
|---|---|---|---|---|
| Ban Chat | 28,911 | 10,986 | 5,337 | 37,744 |
| Son La | 30,000 | 30,000 | | |
| Song Tranh | 6,500 | 6,500 | 6,500 | 6,500 |
| **Cleaned charcoal** | **57.894** | | | |

*(Source: SCL JSC)*

- Accordingly, we estimate the revenue of SCL in 2010 as follows:

**Table 20: Estimated Revenue in 2010**

| Product | Quantity | Price (VND Thousand) | Estimated revenue (VND Bil) |
|---|---|---|---|
| Dried fly ash | 168,978 | 793 | 134 |
| Clean charcoal | 57,894 | 190 | 11 |
| | **Total** | | **145** |

- Basing on SCL's annually cost per sale over 3 recent years, we estimate EPS forward is 4,000 VND.

**Table 21: Financial indicators estimated of 2010**

| Financial indicators estimated of 2010 | Value |
|---|---|
| Net sales (VND Bil) | 145 |
| Net Profit after tax (VND Bil) | 36 |
| **EPS (VND)** | **4.000** |

## VIII. VALUATION MODELS

To help investors make investment decisions, we determine the value of enterprise at the two points of view includes short-term investments within 2010 and long-term investment.

### View of short-term investment

Currently, 2 methods are commonly employed : P/E and P/Bv

***a. P/E***

2010 EPS forward is 4.000 VND corresponding to the shares number of 9.000.000;

Industry average P/E (10 days from 25/08//2010 to 09/06/2010) : 7.7 (Appendix 1);

Price per share: 4.000 x 7.7 = ***30.800 VND/share***.

***b. P/Bv***

The method based on book value of the SCL and P/Bv of companies listed on the HOSE and HNX.

- Book value per share at 31/08/2010 was 14,633 dong with the total shares number 9,000,000.
- Industry average P / Bv (10 days from 25/08/2010 to 09/06/2010 days): 2.1 (Appendix 1)
- Price per share: 14.633 x 2.1 = ***30.729 VND/share.***

***c. DCF***

For short-term investment, SCL's value was estimated by applying DCF valuation model on SCL's core business of producing fly ash.

There are some reasons for us to apply the above method. First of all, the project of autoclaved aerated concrete factory is still construction. So, there will not any revenue and profit until the project is completed. In plan, the factory can only be put into pilot operation in December 2010; SCL also cannot sell product in commercial scale earlier than year of 2011.

*The valuation result is based on the following assumption:*

Chartered equity is not changed with value of 90 Bil VND;

- Dried fly ash production remains stably from now to 2015. Revenue of this activity will decline in the following years as the number of hydro projects is limited.
- CAPEX for fly ash production is negligible, about 1% of net sales;
- Cash flow after 2018 will increase with grow rate of 2%
- Discount rate for the FCFF in the first 10 years will be 11.07% and 10.07% in the following years. The discount rate for the FCFE method is 13% in 10 years and 11% in there after;

| Valuation Models | Price | Proportion | Weighted average |
|---|---|---|---|
| FCFF | 33.916 | 50% | 16.958 |
| FCFE | 33.453 | 50% | 15.915 |
| **Average Price** | | | **33.684** |

**d. Determining stock valuation**

| Results | Price (VND) | Proportion | Average (VND) |
|---|---|---|---|
| P/E | 30.800 | 35% | 10.780 |
| P/B | 30.729 | 35% | 10.755 |
| DCF | 33.684 | 30% | 10.105 |
| **Price** | | | **31.640** |

**View of long-term investment**

Under view of long-term investment, investors will accept to pay at the present and expect the increase in firm value in the future after autoclaved aerated concrete brick factory put in operation and create revenue and profit.

Based on information on autoclaved aerated concrete brick factory project, we determine SCL value on the core fly ash activities and the light AAC brick with assumptions as follows:

- Capacity reaches to 75% in the first year, 85% in year 2 and 90% in the following years;
- Brick selling price is estimated at 850.000 VND/m3;
- Cash flow after 2018 is not changed;
- Discount rate for the FCFF in the first 10 years will be 12.05% and 12.51% in the following years. The discount rate for the FCFE method is 13% in 10 years and 12% in the coming years;

| Valuation Models | Price | Weight | Weight average |
|---|---|---|---|
| FCFF | 45.952 | 50% | 22.976 |
| FCFE | 43.548 | 50% | 21.774 |
| **Average Price** | | | **44.750** |

***With the assumptions above, the enterprise value is determined at 44,750 VND per share.***

However, according to our assessment, the value contribution of the brick factory will depend on the brick price. Therefore, the enterprise value can be determined as follows:

| Light AAC brick price (VND/$m^3$) | FCFF | FCFE | Average (VND) |
|---|---|---|---|
| 850.000 | 45.952 | 43.548 | 44.750 |
| 900.000 | 51.880 | 51.013 | 51.446 |
| 950.000 | 57.809 | 56.818 | 57.313 |
| 1000.000 | 63.738 | 62.623 | 63.180 |
| 1.100.000 | 75.596 | 74.234 | 74.915 |
| 1.200.000 | 87.454 | 85.844 | 86.649 |

## INVESTMENT POINTS

According to investors' strategy, the above estimating SCL's value will be good information for them in making decision to invest into SCL company and its stock. Based on SCL's intrinsic value and its stable development capabilities in the future, we do recommend investors to buy this ticker for long-term investments.

In addition to investment into this potential factory, SCL also expand its operation to new business in purpose of exploiting the advantage of fly ash technology. Consequently, the company expects to add economic value. We highly appreciate the orientation of board of directors in developing the company.

## APPENDIX 1 : P/E, P/B of building material industry to 06/09/2010

| Ticket | P/E | P/B | ROE | ROA | Net profit/Sales | Gross profit | Debt/Total Asset |
|---|---|---|---|---|---|---|---|
| BCC | 6.0 | 0.9 | 3% | 15% | 7% | 19% | 79% |
| BHV | 3.7 | 1.8 | 22% | 47% | 17% | 34% | 62% |
| BMP | 6.1 | 2.2 | 34% | 39% | 21% | 28% | 11% |
| BT6 | 8.0 | 2.1 | 16% | 27% | 13% | 21% | 43% |
| BTS | 8.7 | 1.2 | 3% | 11% | 9% | 26% | 75% |
| CCM | 7.5 | 1.7 | 18% | 31% | 10% | 18% | 35% |
| CVT | 9.0 | 2.9 | 14% | 33% | 8% | 19% | 57% |
| CYC | 12.6 | 0.6 | 1% | 4% | 2% | 18% | 63% |
| DCT | 7.5 | 1.5 | 5% | 10% | 11% | 20% | 61% |
| DHA | 5.1 | 1.2 | 21% | 23% | 35% | 42% | 9% |
| DNP | 7.2 | 0.9 | 5% | 13% | 5% | 13% | 59% |
| DTC | 4.7 | 3.0 | 23% | 82% | 16% | 29% | 75% |
| HCC | 7.0 | 1.9 | 16% | 29% | 7% | 11% | 45% |
| HCT | 16.9 | 1.3 | 7% | 8% | 7% | 13% | 16% |
| HLY | 3.9 | 1.9 | 30% | 46% | 12% | 26% | 29% |
| HOM | 4.7 | 0.8 | 6% | 16% | 10% | 24% | 60% |
| HPS | 11.7 | 1.2 | 7% | 10% | 12% | 21% | 37% |
| HT1 | 7.6 | 1.0 | 2% | 14% | 6% | 18% | 83% |
| LBM | 7.6 | 1.5 | 5% | 8% | 7% | 30% | 35% |
| NAV | 8.9 | 1.0 | 8% | 13% | 9% | 18% | 28% |
| NTP | 5.7 | 3.0 | 41% | 61% | 20% | 36% | 30% |
| PPG | 5.3 | 1.1 | 9% | 20% | 3% | 12% | 57% |
| QNC | 5.8 | 2.2 | 5% | 35% | 7% | 23% | 85% |
| SAV | 16.4 | 0.8 | 2% | 5% | 4% | 20% | 45% |
| SCC | 7.9 | 0.9 | 14% | 18% | 9% | 13% | 19% |
| SCJ | 5.2 | 1.3 | 14% | 22% | 16% | 23% | 39% |
| SDN | 5.9 | 1.5 | 13% | 25% | 8% | 24% | 49% |
| SDP | 10.0 | 1.8 | 2% | 18% | 3% | 9% | 91% |
| TBX | 6.7 | 2.3 | 14% | 30% | 7% | 20% | 55% |
| TCR | 8.7 | 0.9 | 1% | 2% | 1% | 19% | 47% |
| TDC | 4.3 | 2.1 | 7% | 25% | 13% | 18% | 72% |
| TLT | 12.6 | 8.7 | 2% | 88% | 2% | 17% | 96% |
| TMX | 10.4 | 1.6 | 6% | 16% | 1% | 4% | 65% |
| VCS | 5.5 | 1.6 | 12% | 27% | 16% | 25% | 61% |
| VHL | 5.9 | 2.1 | 11% | 37% | 7% | 26% | 70% |
| VIT | 4.7 | 1.1 | 4% | 22% | 4% | 20% | 84% |
| VTS | 3.7 | 1.9 | 31% | 57% | 25% | 41% | 46% |
| VTV | 6.7 | 0.9 | 5% | 15% | 2% | 18% | 58% |
| XMC | 6.1 | 1.8 | 6% | 26% | 8% | 22% | 75% |
| YBC | 16.6 | 1.7 | 3% | 12% | 3% | 20% | 78% |

**APPENDIX 2:** Estimated revenue and profit from fly ash production

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| Net sales | 145 | 150,13 | 215,91 | 159,5 | 140,8 | 131,42 | 131,42 | 122,037 | 122,037 |
| Profit after tax | 36 | 39,14 | 56,03 | 39,52 | 34,6 | 32,55 | 32,34 | 30,239 | 30,025 |

**APPENDIX 3:** Estimate revenue and profit from fly ash and light AAC brick production

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| Net sales | 145 | 277,63 | 366,71 | 318,88 | 300,11 | 290,72 | 290,72 | 281,33 | 281,33 |
| Profit after tax | 36 | 87,02 | 112,85 | 93,491 | 90,255 | 89,750 | 91,692 | 89,584 | 89,07 |

**APPENDIX 4: Product Certificate**

INSTITUTE OF BUILDING MATERIALS
OFFICE FOR CERTIFICATING
QUALITY OF BUILDING MATERIALS

VLXD

# CERTIFICATE

**No.: 08-VLXD**

**Certify the product:**

## FLY ASH FROM PHA LAI THERMAL POWER PLANT

Produced at:
**SONG DA 12- CAO CUONG JOINT STOCK COMPANY**

No. 2- Sung Yen- Pha Lai- Chi Linh- Hai Duong

Meets the standard:

**ASTM C618-00**

Evaluation method:
*Method 5 pursuant to Decision 24/2007/QĐ-BKHCN*

***This certificate is valid from 15/09/2008 to 15/09/2011***

| OFFICE DIRECTOR | TECHNOLOGY COUNCIL | INSTITUTE OF BUILDING MATERIALS |
|---|---|---|
| Nguyen Dinh Nghi | Nguyen The Hung | Thai Duy Sam |

VLXD

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## CONFLICT OF INTEREST

*BSC can use this report for trading activities. At the time of issuing this report, the BSC is a shareholder of SCL.*

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