Silica from Rice Husk

<table>
<thead>
<tr>
<th>Capacity:</th>
<th>Precipitated Silica: 10MT/Day</th>
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<tbody>
<tr>
<td></td>
<td>CaCO3 (by product): 20.6MT/Day</td>
</tr>
<tr>
<td>Plant and machinery cost:</td>
<td>864.00 Lakh</td>
</tr>
<tr>
<td>Working Capital:</td>
<td>0.00 Lakh</td>
</tr>
<tr>
<td>Rate of return (ROR):</td>
<td>25.00 %</td>
</tr>
<tr>
<td>Break Even Point (BEP):</td>
<td>50.00 %</td>
</tr>
<tr>
<td>TCI:</td>
<td>1255.00 Lakh</td>
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<tr>
<td>Cost of Project:</td>
<td>1255.00 Lakh</td>
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Rice husk is an agricultural residue easily available in rice producing countries. India is a major rice producing country, and the husk generated during milling is mostly used as a fuel in the boilers for processing paddy, producing energy through direct combustion & or by gasification. The rice husk contains about 75% organic volatile matter & the balance 25% of the weight of this husk is converted into ash during the firing process, is known as rice husk ash (RHA). This RHA in turn contains around 85%–92% amorphous silica.

Silica is one of the valuable inorganic chemical compounds. It can exist in gel, crystalline and amorphous forms. It is the most abundant material in the earth’s crust. Silica is the major constituent of rice husk ash. With such a large ash content & silica content in the ash it becomes economical to extract silica from the ash, which has wide market & also takes care of ash disposal.

Precipitated Silica (also called particulate silica) is composed of aggregates of ultimate particles of colloidal size that have not become linked in massive gel network during the preparation process. Precipitated Silica soluble silicate solutions are of fine controlled particle size & porous in nature. Precipitated silica powders have a more open structure with higher volume than dried pulverized gels.

Precipitated silica is used as filler for paper & rubber as a carrier & diluents for agricultural chemicals, as an anti caking agent, to control viscosity & thickness and as a cleansing agent in toothpastes & in cosmetics. Precipitated silica also finds its applications as anti caking agents in food industry & as thermal insulators. Precipitated silica is perhaps the best not black filler and reinforcing agent used in rubber industry especially for the production of silicon rubber.

Precipitated silica market is fragmented and major portion of the global market share is constituted by regional players. Therefore, precipitated silica market has high price sensitivity. Moreover low capital investment has increased the threat of new entrants in the market mainly in the developing economies. There has been surge in investment by major players in the emerging economies. Thus, Precipitated Silica from Rice Husk Ash as an entrepreneur offers an exciting opportunity to you.

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