

Manufacture of Value Added Products from Rice Husk (Hull) and Rice Husk Ash (RHA)



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Manufacture of Value Added Products from Rice Husk (Hull) and Rice Husk Ash (RHA)
(Precipitated Silica, Activated Carbon, Cement, Electricity, Ethanol, Hardboard, Oxalic Acid, Paper, Particle Board, Rice Husk Briquettes, Rice Husk Pellet, Silicon, Sodium Silicate Projects)

Rice husk is the outermost layer of protection encasing a rice grain. Rice husk was largely considered a waste product that was often burned or dumped on landfills. Many ways are being thought for disposal of rice husk and only a small quantity of rice husk is used in agricultural field as a fertilizer, or as bedding and for stabilisation of soils. Therefore, the use of rice husk as rice husk ash is one of the most viable solution. The husk can be used for poultry farming, composting or burning. In the case of burning, it has been used as biomass to power reactors to generate thermal or electrical energy. 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 and / or by gasification.

The rice husk ash causes more environmental pollution and its disposal becomes a problem, hence requires attention regarding its disposal and its reuse. The ash is mainly composed of carbon and silica due to which it is used to manufacture different value added products. This book provides thorough information to utilize RHA with process pathway for economically valuable products.

This handbook explains manufacturing process with flow diagrams of various value added products from rice husk & rice husk ash, photographs of plant & machinery with supplier's contact details and sample plant layout & process flow sheets. The major contents of the book are rice husk, rice husk ash (RHA), precipitated silica from rice husk ash, activated carbon from rice husk, cement from rice husk ash, electricity from rice husk, ethanol from rice husk, hardboard from rice husk, oxalic acid from rice husk, paper from rice husk, particle board from rice husk, rice husk briquettes, rice husk pellet, silicon from rice husk, sodium silicate from rice husk, packaging.

This book will be a mile stone for the entrepreneurs, existing units, professionals, libraries and others interested in recovery of value added products from rice husk (rice hull) & rice husk ash to explore an

economic way for recycle and reuse of agricultural waste.

Contents

1. Rice Husk (Hull)

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(b) Preparation of Activated Carbon

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(d) As Pet Food Fiber

(e) Substrate for Silica and Silicon Compound

(f) Used for Making Bricks

(g) Rice Husk as Fireworks

(h) Used as Pillow Stuffing

(i) Other Uses

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