

STEER aims to help transform jute industry in India with Jute Polymers

- ❖ Bengaluru-based STEER makes new advancement in jute compounds that can help in use of fiber in automobile parts (under-the hood), housing construction materials or even microwaveable cooking containers
- New compound can have ripple effect not only on the jute sector, but the entire Indian economy by opening up a huge market opportunity
- Jute polymers to provide excellent opportunity for new sunrise industry to emerge, creation of thousands of jobs in West Bengal, Orissa and Bihar
- STEER urges state governments to play a pivotal role, convert their resource strength to their economic benefits to make jute the "fiber of the future"

Bangalore, 10 November, 2015: The day isn't far, when Jute will find its way into the production of under-the-hood automobile parts such as air intake manifold, radiator end-caps, fan & shroud etc. or even housing construction materials or even into the kitchens of every single household with microwavable cooking containers. Bengaluru-based STEER, creator of materials platform technology that effectively transforms and functionalises materials in the field of pharmaceuticals, plastics, food & nutraceuticals, biomaterials and bio refining, announced the development and availability of technology to process jute-filled polypropylene compounds (jute polymers), that will have the capability to replace minerals and fibers and help reduce product cost, density and carbon footprint, while improving product performance.

The popularisation of jute polymers is expected to help provide a major thrust to the Government's Make in India campaign, by popularising new usage of jute in other sectors, thus stimulating industrial activity. Jute polymers are certain to greatly benefit the jute industry with its ability to transform the traditional use of jute for modern day products, thus, touching human lives. Nearly 75% of jute goods are used as packaging materials, burlap, gunny cloth (hessian), and sacks.

Speaking about the advancement, **Dr Babu Padmanabhan**, **Founder and Managing Director**, **STEER** said, "Through years of constant innovation and reinvention, scientists at STEER have now developed jute-filled polypropylene (PP) compounds, by incorporating up to 50 percent by weight of jute, utilising advanced corotating twin-screw platform technology with special patented fractional-lobe elements. The new material has formidable advantages – it is strong, flexible, and heat-resistant, not to mention that it is also an economical, lighter and eco-friendly reinforcing agent for plastics."

It is well known that India is one of the largest producers of jute in the world and one of the major industries in West Bengal with 70 of the 94 composite jute mills based in the state, whereas another 3 mills are located in Orissa. According to government estimates, the jute industry provides direct employment to close to 0.37 million workers in organized mills and in diversified units including tertiary sector and allied activities and supports the livelihood of around 4.0 million farm families; this is in addition to the large number of people engaged in the trade of the natural fiber.

Outlining the economic benefits which Jute polymers could provide, **Dr Padmanabhan said**, "There is a potential for a new sunrise industry to emerge, creating thousands of jobs, especially in jute rich resource states such as West Bengal, Bihar and Orissa. Jute polymers, if promoted aggressively by the Government and the industry, can have a ripple effect not only on the beleaguered jute sector, but the entire Indian economy by opening up a huge market opportunity for an industry that has historically been low on added value. If these Governments decide to play a pivotal role, they can convert their resource strength to their economic benefits. Create an industry that today does not exist, grow it, empower the jute producers, enhance their quality of living, usher in a new industrial development fueled by its natural resources."

The use of jute as a raw material has been at the low end of the value chain of the agriculture produce pyramid, compared to products such as sugarcane, coconut, coffee and tea which have become highly commercialized commodities delivering huge monetary benefits to producers and value adders alike. According to estimates, as many as four million families in India are engaged in jute cultivation currently, producing 1.5 million tons of jute. These jute producers, especially small farmers, would be the biggest gainers because of market expansion triggered by jute polymers. The demand for jute would increase exponentially, triggering a cascading, beneficial effect on local rural economies of jute-producing states. This is significant because the jute industry has been grappling with challenges such as the rapid onslaught of plastic bags as a jute substitute.

Composite and Compounded materials from man-made fibres (i.e. glass fiber, carbon fiber etc.) are already available as products for consumer and industrial uses. Jute is one such natural fiber that can reduce the impact on the environment. It is available in abundance, strong and is increasingly being referred to as the "fiber of the future".

Jute filled PP composites are today being successfully used for various components and materials. . India is still largely an agrarian economy, which needs to generate massive employment in rural areas for a rapidly growing population. Technological breakthroughs such as jute-filled PP compounds show the way for economic development of the masses by marrying state-of-the-art technology and research with cash crops to create rural and industrial prosperity.

About STEER:

STEER is a creator of materials platform technology that effectively transforms and functionalises materials in the field of plastics, pharmaceuticals, food & nutraceuticals, biomaterials and bio refining. Founded in 1993 by Dr. Babu Padmanabhan with a vision to **steer a new world**, STEER today has 5 global offices and 10 satellite offices, serving over 39 countries and employs over 500 gifted engineers, scientists and technicians across the globe. With 33 patents for breakthrough innovations, STEER is committed to the design, creation and implementation of advanced technologies, components, elements, peripherals and applications that help in the creation of safer, stronger, lighter, more sustainable products. Key to the company's success has been its ability to combine advanced technology with technical expertise and an in-depth knowledge of sciences in its field of focus. STEER's state-of-the-art Development Centers are centers of progressive research where competence arising from R&D is tested in real life scenarios, under actual production conditions.

STEER Development Centers partner with researchers and manufacturers in a number of different ways, including;

- 1. the development of newer, more sustainable materials
- 2. development of high quality materials, with unique characteristics and properties, to help create stronger, lighter, safer products.
- 3. optimisation of existing processes / formulations to enhance efficiency and improve the overall quality of end-products.

To learn more about STEER, visit <u>www.steerworld.com</u>

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