

## Craft paper honeycomb

Made by **RV-TIFAC Composites Design Centre, Bangaluru**



### **Description of composites innovation**

Development of craft paper honeycomb, by innovative technique using cost effective machines. Honey comb core sandwich composite parts are developed for innovative applications. Different grades of honeycomb core is produced and marketed for wide ranging applications. The value created is innovative and cost effective techniques used for manufacturing honeycomb core material, and also manufacturing value added honeycomb sandwich panels as cost effective replacement for wood based products. The honeycomb core is a green material, which can be further exploited for sustainable and inclusive development.

### **Summary of the key benefits of the innovation**

The honeycomb is the lightest core material that could be used for manufacturing sandwich panels. The raw material for manufacturing the honeycomb is a recycled craft paper and therefore, it is environment friendly and cost effective. The cost of the material is very low when compared to EPS, PUF, PVC, Low density wood, and other commercially available sandwich core materials. Wide ranging applications could be developed once this material is readily available in the market and would greatly benefit the industry.

### **The development phase and launching of innovation**

Development of honeycomb core was first carried out by using modified paper corrugated machine at CDC. Further developments were carried out using modified metal honeycomb core manufacturing machine used by aircraft industry. The Machine was developed indigenously, at low cost. After successful development of consistent quality, manufacturing of honeycomb core

was taken up and successfully operated. Honeycomb core was introduced to several large industries for the first time in the country, as a cost effective replacement of wood. Honeycomb core sandwich panels were also developed and tested for acoustic properties and successfully introduced for an innovative application.

### **The market potential of the innovation**

Business potential is over Rs.100 crores for these innovative products. Potential business sector: furniture, partition wall, sandwich panels for commercial and wide ranging industrial applications.

### **Additional information about the Company**

RV – TIFAC Composite Design Centre is a collaborative venture with Govt. of India , Govt.of Karnataka and R V College of Engineering, engaged in R&D , Technology Transfer , Training and Entrepreneur development activities. RV-TIFAC CDC has successfully established a Composites Technology Park, with large infrastructure facilities and state of the R&D, Testing and Manufacturing facilities for GPP and natural fiber composites.

### **Partner**

L Square Eco Products Pvt. Ltd, [www.honecore.com](http://www.honecore.com)

### **More details of the company and their Role in the composite innovation**

In the year 2007, four B.Tech final year engineering students carried out their project work on Honeycomb core and sandwich panels at RV-TIFAC CDC. After completing their engineering, two of them registered as incubate company at CDC and started their operation. Subsequently, They have successfully established their own company L Square Eco Products Pvt.Ltd. Currently, the company is engaged in development and manufacturing craft paper honeycomb core materials of different grades. The company is also manufacturing honeycomb sandwich composites parts, for the past one year and supplying to major industries. The company is a registered incubate of RV-TIFAC CDC.

**Winner of 2011 ICERP- JEC Innovation Award: Category Research & Technical Center**