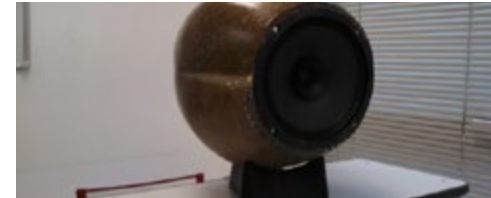


PÀT APPLICATIONS SHEET

The first natural reinforcement for composites mass production

Pàt is **the first non-crimp fabric made out of jute fibers**, specially designed to meet technical and cost requirements of manufacturers. Similar to premium natural fibers, jute offers a **good stiffness-to-weight ratio, with a price that competes with fiberglass**.

Its **compatibility with classical resins and usual production processes** enables the development of **mass production** for **marine and sporting goods as well as design and furniture**.



Sailboat - Gold of Bengal

The first 100% jute boat designed by Marc Van Peteghem, unveiled in Bangladesh in 2013.

- ▶ **Objectives** / Leisure boat. Hull and desk resistant to waves, humidity and UV rays
- ▶ **Composition** / Resin polyester, Pàt reinforcement (6 layers of 650gsm) and plywood
- ▶ **Production process** / Infusion for a 20% fiber volume fraction*
- ▶ **Results** / This major prototype measures 6,5m and weighs 600kg. Resistance and longevity were confirmed during a 6 month trip in the Bay of Bengal. First clients are ordering Pàt fabric for their own series of leisure boats.

Stools – Toul

Designed by Joran Briand (Studio Trust in Design), winner of the VIA 2013 design competition.

- ▶ **Objectives** / A structural and designed stool capable of supporting a minimum weight of 100kg
- ▶ **Composition** / Polyester resin and Pàt reinforcement (2 layers of 300gsm)
- ▶ **Production process** / Infusion
- ▶ **Results** / Sophisticated furniture with natural look, 40cm high, 2kg weight and minimal thickness (3mm). The French editor Saint Luc is committed to a mass commercialization.

Speakers – Composound

The first sound system made of jute and bioresin.

- ▶ **Objectives** / Resistant to vibrations and every-day contact shocks. Light (max 20kg)
- ▶ **Composition** / Pàt reinforcement (1 layer of 670gsm), fiberglass reinforcement twill (1 layer 100gsm), bioresin SICOMIN (SR grennpoxy 56 / SD 8824)
- ▶ **Production process** / Infusion for a 40% fiber volume fraction
- ▶ **Results** / An innovatively designed speaker with a shiny golden look. Light (4kg), High quality sound emission. It emits a very nice sound.

Rescue-boards

Rescue-boards "made in Bangladesh" for the Royal National Lifeboat Institution.

- ▶ **Objective** / Ability to support two casualties with a minimum weight of 300kg as a buoyancy aid and capable of sustaining an impact constituting up to 6kg of pressure. Lightweight (15kg), resistant to UV rays and humidity. Easy to process
- ▶ **Composition** / Polystyrene foam, epoxy resin, Pàt reinforcement (1 layer 450 gsm, 1 layer 370 gsm), cotton (1 layer 80gsm)
- ▶ **Production process** / Mix hand layer and infusion for a 25% fiber volume fraction*
- ▶ **Results** / The final dimensions of the board are 2,7m length by 90cm wide and a weight of 14kg. The prototypes have been tested and approved by Bangladeshis coastal lifeguards.

MARINE

DESIGN

LEISURE AND SPORTS

GET IN TOUCH

For more information on the JUTE LAB Program > www.jute-lab.org

For any information or samples > jutelab@goldofbengal.com

Gold of Bengal values and standards

Pàt unidirectional non-crimp fabric is the first eco-friendly reinforcement made of natural jute fibers with a high performance rate and natural golden aesthetic, coupled with a positive social impact in Bangladesh.