Biodegradable partitioned tray made of waste paper, for storing and transport of food products

Used as packaging in food industry for storage and transport of food products packed in plastic cups (yoghurt in cups, sour cream, cottage cheese, ice cream, pudding, etc.).

TECNOLOGY/PRODUCT OVERVIEW

The biodegradable partitioned tray is an innovative and new product made of waste paper. A disposable product which can be used again as a raw material in the same production line. The construction of the body of packaging is of a small overall size and light but consistent enough to provide adequate resistance to mechanical impact, various pressure occurring in transport with sufficient flexibility enabling easy handling when placing on shelves or other places for sale.

The essence of the invention is that the biodegradable partitioned tray fully accomplishes the important purpose of producing a cheap product with basic environmental characteristics, which at the same time at lower price has much better mechanical and chemical properties that the paper and plastic packaging (resistance to various mechanical impacts, flexibility, temperature resistance, pressure, more hygienic because it does not produce tiny dust particles that contaminate products in the food industry, etc.)
The problem it is trying to solve is to avoid hygienic and sanitary issue (no tiny dust particles are formed during use which contaminate the dairy products on the filling line), avoid deforestation.

The main users of the biodegradable tray is food industry (dairies, juice production, fruit production)

The innovative, new product can be produced in many countries by selling the license of the patent with the know-how technology.

TECHNOLOGY/PRODUCT FEATURES, SPECIFICATIONS AND ADVANTAGES

The innovative aspect of the product lies in the constructive solution of secondary biodegradable packaging, where the crate body is a light structure which is consistent enough to provide adequate resistance to mechanical impact, various pressures occurring in transport with sufficient flexibility enabling easy handling. Provide safe keeping, storing and transport of products of food industry packed up in plastic cups of primary packaging. Provides easy insertion and better fitting of packaging itself upon cup bed walls which ensures stable position during transportation, eliminating the possibility of turning over the plastic cups when inserted into the crate body.

The invention has the following advantages, among which the most important are:
-significantly reduces production time,
-significantly less space for stacking,
-easier manipulation with fully filled biodegradable partitioned trays,
- no tiny dust particles are formed during use which contaminate the products of food industry on the filling line
-cheaper packaging
-moister proof, partially waterproof
-ensures stable position of the primary packaging during transportation
The advantages over already known technical solutions with the above mentioned are:
-reduced loss caused by interruptions in production, which usually occur in production of cardboard boxes due to various inaccuracies in manufacturing,
-no scrap in production

The biodegradable partitioned tray weights 105 g, load capacity per product is 8 kg.

POTENTIAL APPLICATIONS

The biodegradable partitioned tray can be used in food industry, wherever the food is packed in plastic cups and transported and stored in partitioned tray.
The biodegradable partitioned tray can be used all over the world, so the estimated size of the market is huge, markets of Europe, Asia and USA.
The need for partitioned tray in the dairy industry increases annually.
In the world, milk production is on an upward trend. Milk is definitely the most important dairy product in the world, in developed countries, however, the importance of processed dairy products and high-quality functional foods is increasing.

CUSTOMER BENEFITS

According to feasibility studies made for some European countries the profit is up to 50% of the income. The profit mostly depends of the raw material management and market situations.
Social benefits can reflect on the area where the production is taking place by buying up waste paper from the local community collectors.
The environmental benefit is the usage of waste paper in the production and there is no waste because the scrap returns in the production process.

TECHNOLOGY READINESS LEVEL:

The technology readiness of the product is level 8.

If you are interested, please respond to:

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