



pakit™

PRODUCT SOLUTIONS



BREAKTHROUGH INNOVATIVE TECHNOLOGY TO
CREATE SUSTAINABLE PACKAGING
THE SMART ALTERNATIVE TO PACKAGING PRODUCTS.

**THE NEXT
GENERATION IN
PACKAGING**

PRODUCT SOLUTIONS

OUR PRODUCT SOLUTIONS BEHAVE LIKE PLASTIC BUT ARE SUSTAINABLE LIKE PAPER.



VERSATILE, LOW COST INPUTS: Pakit's moulded board is dense but thin, requiring relatively small amounts of raw material in production. A single-line plant often consumes less material than conventional packaging technologies, boosting efficiency and cost savings in production and transport. Our innovative patented technology can use virtually any kind of plant fibre, including locally sourced materials and low-cost cellulose fibre. Therefore, there are no expensive shipping and fuel costs before production begins.

ENERGY SAVINGS: Our innovative patented technology requires significantly less energy than competing technologies. There are no emissions from the process since it is powered by electricity allowing for the use of renewable energy sources.

WATER CONSERVATION: Almost all of the required water to run the initial production stages is re-used during each cycle through a design that minimizes loss of water, significantly reducing costs. The use of patented bronze tooling and the use of steam, high pressure and vacuum technology helps to eliminate the need for large volumes of expensive chemicals typically required to produce high-performance packaging materials.

ENVIRONMENTAL FACTORS: Pakit moulded board dissolves into an organic material. **It is recyclable and will break down and decompose.** And yet, crucially, it possesses these remarkable characteristics without compromising on performance. Pakit's **Carbon Solutions Strategy** will revitalize the pulp & paper industry by producing a superior moulded fibre product using our new and innovative patented technology that will replace plastic and fossil fuel-based packaging products on a commercially competitive scale with positive global ecological implications. In addition our Carbon Solutions Strategy will do the following:

- Reduce Greenhouse Gas (GHG) emissions at an astonishing rate that compounds transportation and storage cost savings almost exponentially due to the light weight and ultrathin dimensions of our product;
- Reduce "equivalent carbon dioxide" (CO₂e) emissions and energy costs of manufacturing food packaging products from a market average of 55-70% to less than 15% per unit;
- Reducing our carbon footprint in our landfills (up to 35%) by replacing petroleum-based plastics and Styrofoam packaging products with a with a recyclable, cellulose-based product;
- Generate carbon credits and offsets for Government and Municipal landfills unlike anything seen before which would assist Governments commitment to reducing greenhouse gases in accordance with the United Nations Framework Convention on Climate Change (UNFCCC);
- Reducing potentially carcinogenic petroleum-based agents such as Bisphenol A (BPAs) from the food packaging industry by providing an environmentally safe solution to alternative food packaging products for a worldwide market.

CONSUMER BENEFITS:

Cities, states and countries throughout the world have started to take steps to reduce the amount of EPS used by consumers. For example, both L.A. County and the City of Los Angeles recently restricted use of EPS in food service productions from City facilities. In addition, Seattle announced that all single-use food service packaging must be compostable or recyclable. Meanwhile, two bills in the state of New York, which would enforce the use compostable and recyclable foodservice packaging products, and ban those made from EPS foam, have advanced to a public hearing. New research is published each year that implicates certain types of plastic with health hazards.

For consumers, this far-reaching legislation and research can lead to safer food consumption and a healthier lifestyle. Sustainable packaging also contributes to a healthier planet, cleaner cities, and an environmentally sound environment with reduced landfills and ocean waste.

MOULDED BOARD BENEFITS:

Pakit's moulded board is an industry changing packaging made from recycled or virgin plant fibres. Unlike cardboard or paper, moulded board possesses the advanced properties of plastics such as strength and resilience, but can cost less to produce. Exceptionally rigid and highly versatile, moulded board is the ideal cost-effective solution for a wide range of packaging applications.

- While most pulp-based packages have rough or textured surfaces, moulded board provides a smooth, printable surface suitable for detailed labeling, embossing, and custom branding;
- Moulded board can be made to a range of technical specifications in virtually any shape or colour. Its smooth surface and durability make it the perfect replacement for plastic cups, trays, clamshells, plates, protective packaging, specialty packaging and horticultural products;
- In specific designs at just 0.6mm thick, moulded board can withstand up to 200 newtons per square millimeter;
- Moulded board deep freezing to elevated temperatures without deterioration, giving it a performance edge over many plastics. It is microwave, freezer and oven-safe;
- Moulded board is hygienic, making it ideal for a wide variety of food storage and medical applications.

PRODUCT SPECIFICATIONS - Below are just some of the products pakit100 technology can produce. Custom tooling is also available.

PRODUCT	NAME	CATEGORY	DIMENSIONS	COLOUR
	CLAM SHELL	FOOD SERVICES	5" x 5" x 2.5" 130 x 130 x 64 mm	CUSTOMER SPECS
	CLAM SHELL	FOOD SERVICES	4" x 4" x 1.25" 104 x 104 x 32 mm	CUSTOMER SPECS
	5C TRAY	FOOD SERVICES	10.3" x 8.4" x 1.2" 263 x 213 x 30 mm	CUSTOMER SPECS
	B3F TRAY	FOOD SERVICES	9.4" x 7.2" x 1.2" 238 x 182 x 30 mm	CUSTOMER SPECS
	2 CUP CARRIER	FOOD SERVICES	8" x 4" x 1.6" 203 x 108 x 40.4 mm	CUSTOMER SPECS
	3 CHANNEL TRAY	SUPERMARKET	8.4" x 4.2" x 2.3" 214 x 106 x 54 mm	CUSTOMER SPECS
	LARGE TRAY	SUPERMARKET	9.9" x 7.2" x 1.6" 252 x 182 x 40.5 mm	CUSTOMER SPECS
	TRAY	SUPERMARKET	6" x 6" x 1.2" 150 x 150 x 30 mm	CUSTOMER SPECS
	2S TRAY	SUPERMARKET	8.2" x 5.7" x 0.7" 209 x 145 x 17 mm	CUSTOMER SPECS
	TRAY	SUPERMARKET	6.6" x 4.8" x 1.6" 170 x 125 x 40 mm	CUSTOMER SPECS
	10S TRAY	SUPERMARKET	10.75" x 5.75" x 0.5" 273 x 146 x 12 mm	CUSTOMER SPECS
	VENTED TRAY	SUPERMARKET	6" x 6" x 1.2" 150 x 150 x 30 mm	CUSTOMER SPECS

WASTE FIBRE

Cardboard, unwanted husks from farming, and even wood chips, are all waste by-products from our industries, often discarded and left to rot in landfills. Pakit's revolutionary technology enables nearly all fibre types to be transformed into durable, versatile packaging. This not only contributes to environmental sustainability, but also to a company's bottom line: many of these resources are free or extremely inexpensive.

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MOULDED BOARD

Pakit's unique moulded board is clean and hygienic, recyclable and biodegradable. With the option of creating 100 percent natural moulded board, organizations can choose to leave zero trace of their packaging on the earth. Because we don't use a chemical process, it can be recycled multiple times without destroying the fibres, saving even more in resources and costs.

3

PAKIT PRODUCT LIFECYCLE

TREES

Taking nutrients from the soil, plants are 'the lungs' of our planet, providing ecosystems for rare species and producing oxygen to support all life. Millions of square kilometers of farmland and forests are harvested each year to produce packaging and other consumer products, before these resources are renewed once more.

1

EARTH

Returned to the earth, moulded board soon becomes part of the soil used to nurture plants that can then be used for resources, thus beginning the cycle again.

4

ENGINEERING CERTIFICATES:

Pakit's innovative technology has been built in accordance with the following accreditations:

- Six Sigma
- ISO9001: 2000 registered
- TS16949: 2002 registered
- ISO 13485: 2003 registered
- FDA 21 CFR Part 820 registered
- CMDCAS registered
- Third party (TUV Canada) certified CE and CSA

PRODUCT FAST FACTS:

UNIQUE FIBRE "FORMING" TECHNOLOGY: Our unique Fibre Forming Process requires less energy, manpower and capital cost. As a result, we can provide rapid tooling design and quick prototype turnaround.

- Higher Quality - Strength, Rigidity, Surface
- Produced from renewable resources - recyclable
- Competitively Priced
- Accurately Produced Products that can be customized for each user application
- Complex Forms
- Reduced Deformation
- Printable Finish
- Moisture Resistant
- Consumer Friendly - Oven, Microwaveable and Freezer Safe
- Environmentally Sound - Products & Process
- Unique Manufacturing - Tooling, Hot Pressing, Microwave Dryer

pakitTM