

Bernastic Breakthrough: New Production Method Globalizes Climate Solution Across Multiple Industries

ATLANTA, GA, UNITED STATES, October 28, 2025 /EINPresswire.com/ -- Bernastic, the materials innovation company founded by textile engineer and inventor Michael Bernstein, today announced a transformative development in its mission to turn fashion waste into scalable climate solutions. By leveraging processes inspired by agricultural pellet machinery—traditionally

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Michael Bernstein

used for animal feed and adapted by industries such as grilling and fuel—Bernastic has created a new production pathway that simplifies manufacturing, reduces costs, and makes its solution globally replicable.

At the heart of Bernastic's innovation is its reinforced thermoplastic composite, which uses cotton fibers as a

natural strengthener, increasing both durability and impact resistance. This unique combination of textile waste and polymer engineering results in a material that performs as well as—or better than—its virgin counterparts, while maintaining full recyclability within circular manufacturing systems.

Bernastic's proprietary process converts discarded cotton and textile waste into durable, moldable materials designed to replace one of global commerce's most overlooked climate culprits: wooden shipping pallets. Major corporations consume the equivalent of up to a forest a day in virgin wood just to keep goods moving. By providing a waste-based alternative, Bernastic directly tackles deforestation and textile waste simultaneously—two of the largest contributors to the climate crisis.

This latest advancement uses pelletized intermediaries, a step that enables more efficient transport, storage, and feedstock for Bernastic's compounding process. The innovation allows for production to take place closer to the source of textile waste while making the material easier to ship and process worldwide.

Cross-Industry Impact

Bernastic's breakthrough extends far beyond logistics. Its pelletized, waste-derived, and reinforced thermoplastic materials can be applied across:

- Apparel & Fashion – solving the end-of-life problem for garments and cutting-room waste

- Agriculture – integrating into existing pelletization infrastructure and supply chains
- Consumer Goods – replacing virgin plastic in packaging, fixtures, and displays
- Automotive & Electronics – offering sustainable alternatives for dashboards, panels, and casings
- Energy & Fuel Systems – leveraging pellet-format adaptability for broader industrial use

By connecting agricultural pellet technology, textile waste, and polymer engineering, Bernastic has built a bridge between industries that historically never intersected.

Global Alignment

With the EU now requiring corporations to reduce carbon footprints by 25–30% or face multimillion-euro penalties, Bernastic's process gives companies a direct, measurable way to meet and exceed those benchmarks. Its global adaptability means production can be localized in markets like Pakistan, the EU, and North America—wherever waste streams exist.

“Waste is not the end of a product's life—it's the beginning of its next one,” said Michael Bernstein, Founder of Bernastic. “By learning from agriculture and feedstock systems, we've created a production method that makes Bernastic's materials transportable, scalable, and globally available. This is how we tackle multiple climate problems at once—and do it in a way that industries everywhere can adopt.”

Bernastic currently holds four pending patent applications covering its reinforced thermoplastic formulation, pelletization process, and manufacturing system design—cementing its position at the forefront of sustainable materials innovation.

About Bernastic

Bernastic is a materials innovation company dedicated to transforming fashion waste into sustainable infrastructure. Founded by textile engineer and inventor Michael Bernstein—creator of the MRI-safe snap used in over 30 million hospital gowns—Bernastic develops solutions that replace deforestation-heavy and virgin plastic products with waste-based alternatives. Its mission is to globalize circular systems that tackle climate change at the root.

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