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October 9, 2024

## Wing Tai, operator of one of the world's largest sewing factories, and fabric trading company Takisada Nagoya collaborate to supply global brands with PlaX™

### Expanding PlaX™ Globally Through a Three-Company Collaboration

Tokyo October 9, 2024 –Bioworks Corporation has partnered with Wing Tai, one of the world's largest sewing factory operators, and Takisada Nagoya, a major textile trading company, to supply PlaX™, a next-generation plant-derived synthetic fiber, to the global market.

Wing Tai, a global apparel company with a strong market presence in the United States, Europe, and Asia, is committed to advancing sustainable materials.

Together with Takisada Nagoya and WingTai, we aim to introduce PlaX™ to both domestic and international markets, not only as yarn and fabric but also as finished products.

### Current issues in the Textile Industry

As the world's population grows, the textile market and textile production are expanding. Among these, production of petroleum-derived synthetic fibers, which are in stable supply, accounts for 60% of the textile market and has been increasing for the past 40 years.

According to the "[Material Market Report 2024](#)" published by Textile Exchange, the production of petroleum-based synthetic fibers increased from 67 million tons in 2022 to 75 million tons in 2023. Polyester is the most produced fiber in the world, and further demand growth is expected in the future.

On the other hand, petroleum is a finite resource and emits a large amount of CO2 during production. Against the backdrop of recent environmental issues, the apparel industry is urgently seeking alternatives to sustainable materials.

PlaX is a next-generation synthetic fiber that can replace petroleum-derived synthetic fibers while being derived from plants, and is being promoted globally as an alternative to the ever-increasing use of polyester.

### About PlaX™

PlaX™ is a textile material that enhances the quality and functionality of polylactic acid (PLA), a biomass material derived from plants like sugarcane, by incorporating our proprietary plant-based additive. As a substitute for petroleum-based synthetic fibers like polyester, it contributes to lower carbon emissions and reduced environmental impact, making it a versatile material gaining global attention.

### How We Address Environmental Impact

- **CO2 Emissions** : Our plant-based synthetic reduces CO<sub>2</sub> emissions by 41% compared to polyester, as it doesn't rely on petroleum.
- **Water Usage** : PlaX™ consumes 90% less water than cotton, requiring only 65 liters to produce 1 kg, compared to cotton's 606 liters.
- **Biodegradability** : PlaX™ is biodegradable in certain circumstances, breaking down into water and CO<sub>2</sub>.
- **Chemical Recycling** : We plan to establish a closed-loop recycling process, allowing PlaX™ to be continually regenerated, minimizing waste.

### About Bioworks

Bioworks is a material creation company with a vision to build a "new ecosystem where the joy of creating and the richness of wearing continues." The company manufactures and sells the next-generation plant-based synthetic fiber "PlaX™," made from polylactic acid (PLA). Since its founding in 2015, Bioworks has leveraged its expertise in PLA research and development and expanded into the textile business in 2021. The company's material is attracting attention from both domestic and international textile industry as a significant contributor to reducing reliance on petroleum-based resources.

### Bioworks Corporation

Representative Director and CEO : Koji Sakamoto

Headquarters: Kyoto, Japan

Business Activities: Manufacturing and sales of modified polylactic acid compounds (PlaX™) and products, businesses to promote resource recycling, etc.

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