



Press Release

June 28, 2024

Electric Power Development Co., Ltd.

Nippon Sheet Glass Co., Ltd.

Nippon Fiber Corporation KK

J-POWER, Nippon Sheet Glass, and Nippon Fiber Corporation Jointly Explore Commercialization of Environmentally Friendly High-Performance Recycled Fiber

Electric Power Development Co., Ltd. (J POWER, headquartered in Chuo-ku, Tokyo; President: Hitoshi Kanno), Nippon Sheet Glass Co., Ltd. (NSG, headquartered in Minato-ku, Tokyo; President and CEO: Munehiro Hosonuma), and Nippon Fiber Corporation KK (Nippon Fiber Corporation, headquartered in Abiko City, Chiba Prefecture; CEO: Hiroshi Fukazawa) have signed a memorandum of understanding (MOU) to jointly explore the commercialization of an environmentally friendly high-performance recycled fiber developed by Nippon Fiber Corporation called BASHFIBER®.

BASHFIBER®, a continuous filament fiber developed by Nippon Fiber Corporation, is made using coal ash and other byproducts from power generation and various industries as raw materials. BASHFIBER® provides high strength, heat resistance, and chemical resistance, making it a potential substitute for existing industrial fiber reinforcement materials such as aramid and glass fibers. There are potential applications as an alternative to existing industrial materials in a wide range of fields, including construction, civil engineering, and the automotive industry.

Moreover, by using coal ash, a byproduct, as a substitute for natural resources, BASHFIBER® can help reduce CO₂ emissions. Also, because this fiber is easy to recycle, it is a promising environmentally friendly fiber reinforcement material.

The New Energy and Industrial Technology Development Organization (NEDO) has recognized this initiative as an innovative technology that contributes to helping resolve economic and social challenges, leading to its selection for NEDO's Deep-Tech Startups Support Program Grant.

In this joint exploration, the three companies will leverage their respective strengths: J-POWER's ability to supply raw materials as byproducts of power generation; NSG's mass production technology for high-performance specialty glass fibers; and Nippon Fiber Corporation's manufacturing technology for BASHFIBER®. These companies will assess manufacturing costs, production sites, potential customers, and production with a view to mass-producing BASHFIBER® in a few years.

J-POWER, guided by the [J-POWER BLUE MISSION 2050](#) vision announced in February 2021, will contribute to carbon neutrality across industries by developing and promoting environmentally friendly and new sustainable products.

BASHFIBER® Product Range



Cloth

Yarn

Roving

Chopped strands, flakes

Reference

Deep-Tech Startups Support Fund / Deep-Tech Startups Support Program

This program by the New Energy and Industrial Technology Development Organization (NEDO) provides support for the R&D as well as the commercialization of “deep-tech startups” who are researching and developing innovative technologies. Eligible projects are those that require long-term R&D and significant funding to establish the technology, commercialize it, and implement this technology in society. These startups are expected to contribute to resolving social and economic issues (carbon neutrality, resource circulation, economic security, etc.) that need to be addressed by the country or the world as a whole, despite any high risks. Nippon Fiber Corporation was selected for the third round of the Deep-Tech Startups Support Program Grant under this support program.

https://www.nedo.go.jp/koubo/CA3_100429.html (Japanese Only)

Strand (cake)

A bundle of several hundred to several thousand filaments wound together from bushings.

Yarn

One or more strand cakes twisted and rewound onto a bobbin. When woven into fabric using warp and weft threads from a bobbin, this is called yarn cloth (YCL).

Roving (ROV)

A product where strands of several hundred filaments (diameter about 9–24 μm) are bundled together with a sizing agent (binder), then aligned in a specified number (from a few to dozens) and wound into a cylindrical shape.

Chopped strands (CS)

Fibers cut to a few millimeters in length from a strand cake or ROV and used as reinforcement material for FRP/F RTP.

Glass flakes

Scale-like glass with an average thickness of 0.5–5 μm and particle size of 10 to several hundred μm .

Company Information

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| Name | Electric Power Development Co., Ltd. |
| URL | https://www.jpowers.co.jp/english/ |
| Established | September 16, 1952 |
| Business | Electric Power Business |

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|-------------|--|
| Name | Nippon Sheet Glass Co., Ltd. |
| URL | https://www.nsg.com/en/ |
| Established | November 22, 1918 |
| Business | Manufacturing and sales of architectural glass (including glass for solar panels), automotive glass, and products in the creative technology field |

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|-------------|---|
| Name | Nippon Fiber Corporation KK |
| URL | https://nipponfc.com/en/ |
| Established | July 6, 2017 |
| Business | Research, development, and manufacturing of new materials such as coal ash continuous filament fiber BASHFIBER® and radiation shielding fiber BASHFIBER US® |