

COMPANY GUIDANCE



CARBON FLY

Turning fantasies into ideas

with carbon nanotubes

CARBON FLY

VISION

With execution to the future



CARBON FLY

In 1991, Carbon Nanotubes (CNTs) were discovered in Japan. Recently, as their performance and properties have been elucidated, the industrial application have been expanded. Nowadays industry frontrunners focus on CNTs as a new structural or functional material of future products that are impossible with others. Moreover, CNTs are carbon fixation material. We are developing the process of CNTs production from CO₂, with commercial viability. We believe our CNTs make a significant contribution to the carbon-neutrality of the world.





From Space to Life science



Material enabling quantum leap.

CNT have 100 times stronger mechanical strength than steel, yet lightweight and flexible.

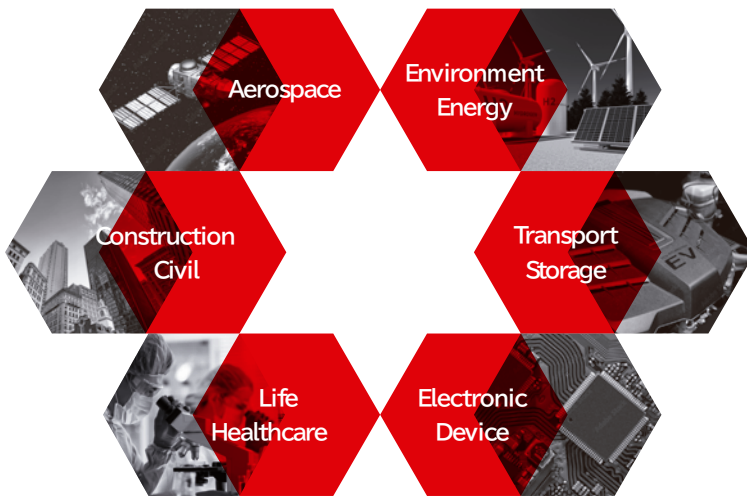
CNT are expected to be used as structural materials in the fields of space development and aeronautics, as well as construction and civil engineering.

CNT are also expected to be utilized as a functional material and composite material in the semiconductor and energy sectors due to electrical conductivity resistance, which is said to be approximately 1000 times higher than that of copper.

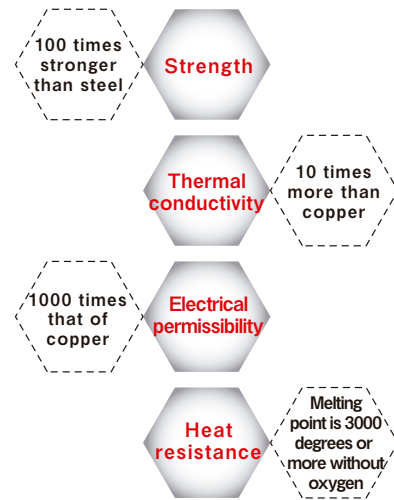
CNT also have extremely high thermal conductivity and heat resistance.

Furthermore, excellent chemical stability of CNT brings high safety for the human body, which attracts attention in the medical and life sciences fields. CNT are long-awaited material in every industry.

Wide range of potential industries

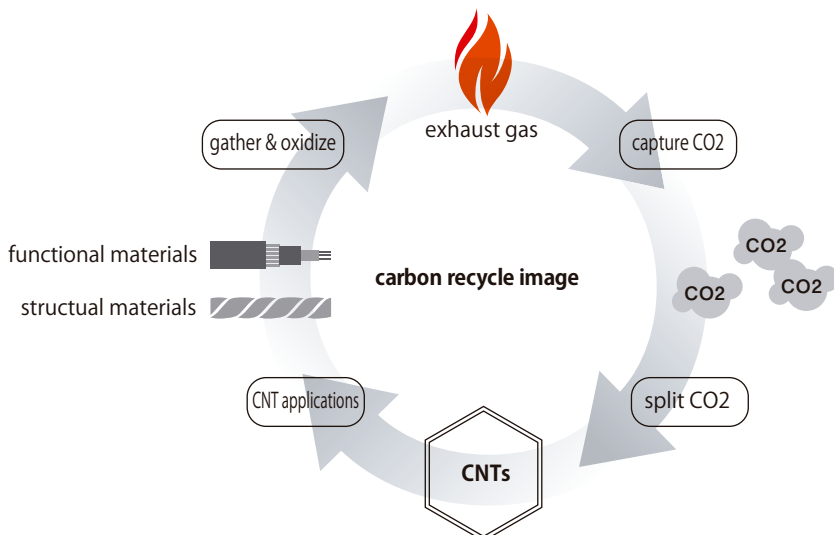


Material properties beyond common practice



CNTs are carbon material, which contribute to carbon neutral.

As a technology-oriented company in this planet, environmental impact is a key driver of our R&D roadmap. Compared with carbon fiber or carbon black, CNTs production process consumes less energy. CNTs has potential use of metal replacement, which decreases dependence to limited natural resources. Researchers also focus on CNTs from the CCUS (Carbon dioxide Capture, Utilization and Storage) viewpoint. We are in the phase of increase efficiency of CNTs production process using carbon dioxide as raw material. This contributes circular economy and sustainable world.



TECHNOLOGY

Despite CNTs have 30 years history, there have been challenges for commercial use.

Quality, quantity and cost.

We overcome them with innovative mass production technology.

In addition to the high quality as material, our CNTs mass production equipment is space-saving and energy-saving.

With CARBON FLY' s technology, our CNTs will serve for various applications across industries.



CARBON FLY

Through innovation ideal to reality





High quality, low variation, with mass production technology

Quality as material with highest standards.

Conventional CNTs production process is growing CNTs from a mixture of catalyst and carbon. However, CARBON FLY has developed a unique technology to grow CNTs with uniform control of diameter and length by separating the catalyst and carbon. This has enabled the mass production of CNTs of much higher quality, compared with conventional production process.

Conventional	CARBON FLY innovation
<p>Catalyst & carbon gas are mix-sprayed into a huge heater.</p>	<p>CNTs grow from a substrate which has been coated catalyst.</p>
<p>catalyst and contain impurities</p>	<p>contains little catalyst and impurities</p>
<p>uneven length and diameter</p>	<p>Uniform distribution by controlling length and diameter</p>
<p>CNTs are irregularly entangled and difficult to process</p>	<p>Can be processed into fibers and films</p>

More like a device, than an equipment. Space saving design.

Our CNTs production equipment is far more compact than conventional ones. Moreover, it is designed to be installed in offices, with office power supply. It is no longer a plant, but a device. Its design addresses potential requests for in-house production of customers.

PRODUCTS

Bringing innovation to society



CARBON FLY

Until recently, CNTs have been used in powder form. Our new production technology enables offering CNTs in the form of films and fibers so that applications have been extended. We are also focusing on building support systems, such as sample research and the providing dispersion technology, to accelerate the development of products made from CNTs.



A variety of CNT morphologies as your needs and purposes

Provide not only CNT powders, but also CNT films or CNT fibers.

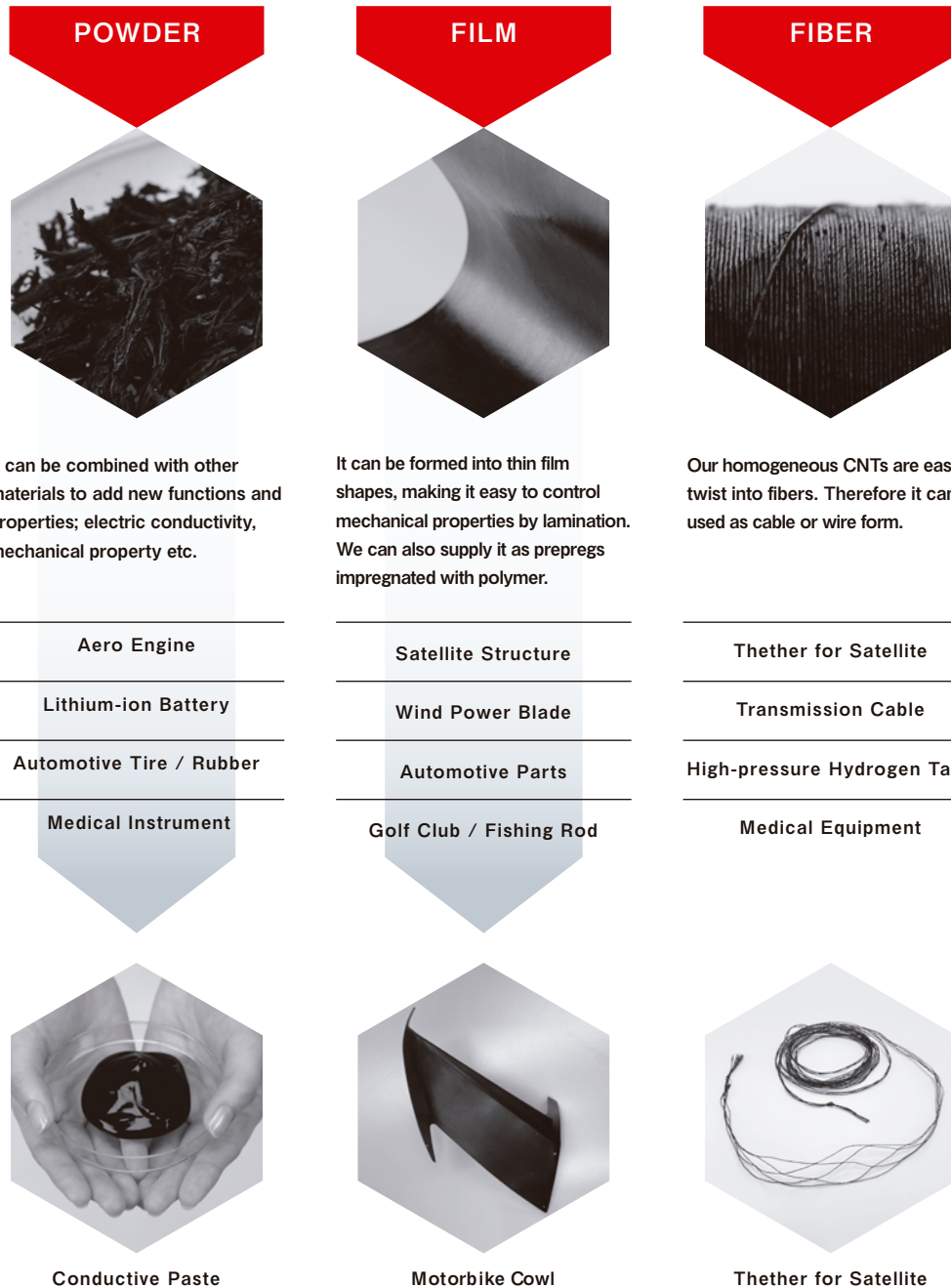
We offer high quality and uniformity of CNTs with various product line-ups.

The basic form is “powder” with no secondary processing.

We also provide “paste (liquid)” added water or organic solvents to our powders.

SWith high spinnability of our CNTs, we can provide “fiber” and “film” with no additive.

We support wide range of industrial fields with clients through developing various applications such as CNTs added polymers, CNT-CFRP composites.



Support to accelerate new product developments.

We can adjust the length of CNTs in the range of 10-1000 μ m.

We also have the advanced cellular dispersion technology which disperse CNTs from a dense state.

These technologies enable to be obtained the desired functions and properties easily and to develop new materials and products smoothly.

We actively work some joint research projects with our clients to provide exact materials they need.

PROFILE

To achieve the earliest social implementation of CNTs. This is our principle and goal.

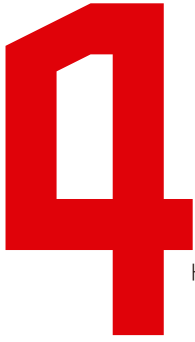
We try to change ideal imaginations into realities in the future society through popularizing this material with huge potentials.

We want to accompany with people who never give up to pursue ideal ways.

To become your partner, CARBON FLY will keep improving our technologies.

We'll be your hope to achieve your dreams.





Company Overview

Name	CARBON FLY, Inc.
Head Office	Time 24 Building 11F, 2-4-32 Aomi, Koto City, Tokyo #135-0064, Japan Tel +81-3-3599-5257
HP	https://carbonfly.co.jp/
Established	January 31, 2022
Paid-in Capital	1,940,800,000 JPY (capital reserve included)
Main Business Field	1_Carbon Recycling Business 2_Research, Development, Manufacture and Sale of nanocarbon materials and its related products 3_Development, Manufacture, Sales, Installation, Maintenance of facilities & peripheral equipment, etc., related to nanocarbon materials and its related products
Principal Shareholders	4_Consultation & Consigned development of nanocarbon materials
Transfer Agents for Common Stock	KANEMATSU CORPORATION, F.C.C. Co., Ltd.
Number of Employees	Mizuho Bank, Ltd., Sumitomo Mitsui Banking Corporation
Representative	43 (as of April 1, 2024) Fei Deng

