



Display of Nippon Paper Group paper packaging products (at Japan Pack 2019, a Japan packaging industry show)

Responsibility to Customers

The Nippon Paper Group aims to achieve its Group Mission by responding accurately to customer needs and providing products and services that contribute to building a sustainable society. As an essential prerequisite for this, we believe that providing a stable supplies of products that are indispensable to everyday life while assuring safety and quality is our basic responsibility to our customers.

*Please refer to page70-71 of the Nippon Paper Integrated Report 2020.

Materiality	Related Indicators	State of Efforts (fiscal 2019)
Enhancement of product safety	Enhancement of the product safety management system Establishment of a product safety management system for new products	Held two meetings of the Product Safety Committee Revised brand management guidelines for brands used for food products and conducted audits of mills producing products under those brands
	Establishment of a product safety management system for new products	Identified risk management items
	Enhanced FSSC 22000 management system for Paper-Pak products	Revised product crisis management manual in response to the revised standard and renewed FSSC 22000 certifications. Conducted product recall drills
Enhancement of product value	Forest certification marks on all Paper-Pak products supplied to customers by fiscal 2020	Expected performance: approximately 1 billion units (performance last fiscal year: approximately 500 million units)

Policy and Management

Basic Stance

The Nippon Paper Group aims to increase its social and economic value and achieve its Group Mission (see P.6) by responding accurately to customer needs and providing products and services that contribute to building a sustainable society. The Group engages in a broad spectrum of businesses including paper, films, healthcare products, chemical products, lumber, and construction materials. The Group believes that providing a stable supplies of products that are indispensable to everyday life while assuring quality and safety is the essential prerequisite for these efforts, and the basis for fulfilling its responsibility to customers. The Group is therefore engaged in efforts to build a system that will enable us to maintain stable supply during both ordinary times and times of emergency.

Product Safety Management System

The Nippon Paper Group pursues quality that can answer persistently to the trust of its customers based on its Philosophy and Basic Policy on Product Safety.

Philosophy and Basic Policy on Product Safety

(established on October 1, 2004, revised on August 1, 2014)

Philosophy

We pledge to work to improve safety at every stage of the life cycle of our products, from design to manufacture, supply, and disposal, and to provide products and services that the public can trust.

Basic Policy

1. To provide safe products and services in response to the continued trust of our customers.
2. To respect related laws and standards in order to guarantee the safety of our products and services.
We pursue safety not only as expected under Japanese laws but also from a global perspective.
3. To provide customers with precise information on the safety, features, and correct usage of our products.
4. To set up a product and service safety management structure and ensure that all employees have a thorough awareness of the importance of product safety.

Nippon Paper Industries has established a Risk Management Committee (see P.25) under the supervision of its Board of Directors, which drives risk management activities for the entire Group, including product safety issues.

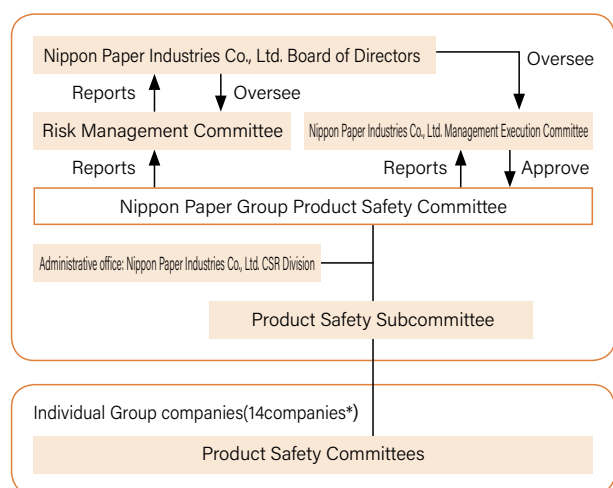
It has also established the Nippon Paper Group Product Safety Committee, chaired by the General Manger of its CSR Division. The committee oversees all matters relating to Group product safety. It discusses and makes decisions on activity policies and strategies, and other important product safety matters for the entire Group, and reports to the Risk Management Committee.

The Group has also established a Product Safety Subcommittee under the Nippon Paper Group Product Safety Committee. The subcommittee monitors and manages the state of activities at each Group company. Drawing on exchanges of information and opinions among Group companies, the subcommittee also deliberates on optimal responses to matters of concern, and reports to and obtains rulings from the Product Safety Committee.

As of the last fiscal year, overseas group companies have also been added to the subcommittee.

Each Group company has also established its own Product Safety Committee or similar organizational unit, and engages in product safety activities.

Product safety management system



*Nippon Paper Industries, Nippon Paper Crecia, Nippon Paper Papylia, Nippon Paper Lumber, Daishowa Uniboard, Nippon Seitai Corporation, Kyoei Seitai K.K., NP Trading, Nippon Paper Development, Opal, Jujo Thermal Oy, Siam Nippon Industrial Paper, Dyna Wave Holding Asia, Akita Jujo Chemicals

Identifying Customer Needs

Nippon Paper Group engages in proactive communication to identify customer needs across a wide range of areas, from day-to-day sales activities to quality patrols by engineering staff.

We receive numerous inquiries from customers about the tree species, countries of origin, and legality of our raw materials. In response, we explain measures we have put in place to address these matters and provide information on third-party evaluations of our activities (see P.30-32).

We reply to customers engaged in CSR procurement*with questionnaires and other materials concerning our CSR initiatives. We are also registered as a supplier with a global platform for disclosure of information relating to CSR procurement.

We also actively invite customers for inspections and tours of mills and plants to give them a view of our production facilities and gain an understanding of our production activities.

*Activities whereby an enterprise attempts to fulfill its social responsibilities when procuring raw materials across its entire supply chain by demanding that suppliers engage in environmental and social initiatives.

CASE Registration with a global CSR procurement platform

The Nippon Paper Group is also registered as a supplier with EcoVadis*, a global information platform for CSR procurement. The Group's CSR initiatives have been evaluated in the top 25% of companies registered with EcoVadis, and earned the Group a silver medal.

In fiscal 2019, Nippon Paper Liquid Package Product Egawa Mill registered with Sedex*, and has since undergone SMETA audits which audit businesses' CSR assessments.

*EcoVadis (a French-based company), Sedex (a British-based NGO)

Both organizations operate global information platforms established for the purpose of promoting CSR procurement by businesses.



CASE Nippon Paper Industries, Paper-Pak Sales Division

Nippon Paper Industries' Paper-Pak Sales Division conducts technical lectures (Paper-Pak School) and Paper-Pak production plant tours for customers (dairy and beverage companies) providing them with information on how to properly use filling machines. At the same time, the division continuously strives to improve its products based on valuable feedback from customers.



Technical lecture



Visitors practice maintenance on filling machines

CASE Nippon Paper Crecia

The customer consultation desk offers a system whereby the opinions and questions of customers can be utilized for the further development and improvement of products.

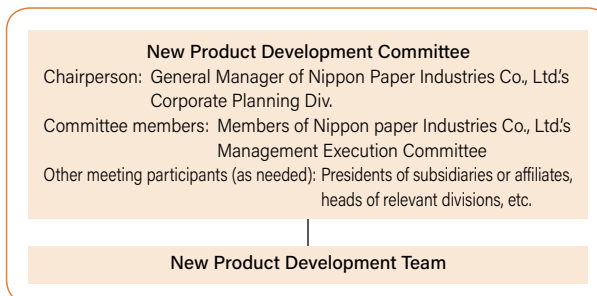
Nippon Paper Crecia is investing its energies into not only catering to customer requests but also uncovering potential needs from various perspectives, constantly pursuing ease-of-use in products, and increasing quality and added value from a customer viewpoint, without being constrained by preconceived ideas.

System for Advancing New-product Development

The Nippon Paper Group has established its New Product Development Committee to accelerate business structure transformation. New product development teams operating under the committee identify research themes and present them in committee meetings held every three months. For themes approved by the committee, formal projects are established and provided with human, financial, and other resources.

The committee is chaired by the General Manager of the Corporate Planning Division and its membership is composed of the president of Nippon Paper Industries and the other members of the Management Execution Committee. Depending on the meeting agenda, presidents of subsidiaries or affiliates, and heads of relevant divisions, may participate in committee meetings in order to speed progress toward commercialization.

System for Advancing New-Product Development



Product Safety and Quality Management

Approach toward Product Safety

The Nippon Paper Group complies with rules for the management of chemical substances both in Japan and overseas, and works to ensure product safety using management methods that match the characteristics of its business and products. With regard to food-related products in particular, we engage in management in accordance with legal regulations on food safety, management systems and standards.

Product safety management approach

Overall level

Management of chemicals contained in products

Food related

Guidelines for paper and paperboard intended for direct contact with food

Specification of brands and production facilities subject to safety management measures; implementation of measures to prevent contamination by insects and other foreign objects and ensure promotion of hygiene management through enhancement of facilities and management systems; management of chemical substances based on Japan Paper Association voluntary standards; and confirmation of the functional status of the above measures

HACCP (Hazard Analysis and Critical Control Point)

A hygiene management methodology that ensures the safety of products through the establishment of management criteria based on identification and analysis of hazards that could occur at all stages of the food product manufacturing process; clarification of important management points for the prevention of those hazards; and constant monitoring, measurement and recording of data to ensure compliance with those criteria

ISO22000 food safety management system

An international standard for food safety management systems which incorporates the HACCP hygiene management methodology

FSSC 22000 food safety standard

A food safety management system certification scheme integrating the ISO 22000 international food safety management system standard, the ISO/TS 22002 prerequisite program on food safety, and other requirements

Acquisition of HACCP certifications (as of March 31, 2020)

Company Name	Mill, Operating Division
Akita Jujo Chemical *1	

*1 Akita Prefecture HACCP certification, food additives

Acquisition of ISO22000 certifications (as of March 31, 2020)

Company Name	Mill, Operating Division
Nippon Paper Papylia	Kochi Mill *2

*2 Production of liquid filter papers and food packaging papers that come into direct contact with food

Acquisition of FSSC 22000 certifications (as of March 31, 2020)

Company Name	Mill, Operating Division
Nippon Paper Industries	Gotsu Mill*3
Nippon Paper Liquid Package Product	Egawa Mill, Miki Mill, Ishioka Mill
Nippon Dynawave Packaging	

*3 CMC (carboxymethyl cellulose), cellulose powder, stevia and licorice sweeteners (all for use in food)

Halal certification obtained

In March 2017, halal certification*4 was obtained for the nucleic acid (RNA-M) and dissolving pulp produced at the Gotsu Mill. The same certification was obtained for CMC (carboxymethyl cellulose) in October of the same year. As a result, the Gotsu Mill can now sell halal products required by muslims both in Japan and overseas.

4 Halal certification

Halal certification is presented for products that, upon inspection of raw materials, production processes, ingredient and product storage conditions, and other matters, have been determined to be in keeping with Islamic law. Products exported to Islamic countries should be Halal certified.

Response to revision of the Food Sanitation Act and positive listing

The Positive List System was established on June 1, 2020, in order to further increase the safety of equipment, containers and packaging made from synthetic plastics. The system enables the use of only substances that have been evaluated as safe for equipment, containers and packaging for food product use. Relevant Nippon Paper Group products (including paper pack containers for liquids) conform to this system.

➔ About the positive list system

https://www.mhlw.go.jp/stf/newpage_05148.html

Quality Management Initiatives

Each Nippon Paper Group company works to acquire ISO 9001 international quality management standard certification as necessary and engages in quality management suited to the characteristics of its products.

→ ISO 9001 certification status

https://www.nipponpapergroup.com/csr/data_packet.html

Quality audits at companies making paper containers for liquids

Nippon Paper Industries (NPI)'s Paper-Pak Sales Division is working to create new value on a day-to-day basis while pursuing functionality in food packaging, through continuous quality control and engineering support for the business locations of Nippon Paper Liquid Package Product which operates its production locations. In an independent initiative to enable customers to choose its products with peace of mind, under various NPI strategies relating to product safety, the Paper-Pak Sales Division holds on-site quality meetings at its business locations and product safety and hygiene audits on an annual basis.

The division is working to improve quality by sharing and rolling-out the most important items relating to food safety—including quality management, chemical substances, microorganisms, foreign objects and legal compliance—across the board.

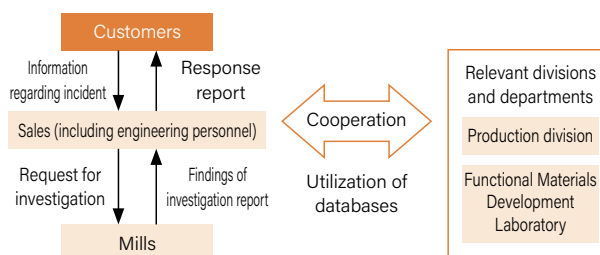
Paper and paperboard division quality assurance initiatives

Nippon Paper Industries has adopted a Service Engineer (SE) system to shorten the distance between customers and production facilities. Under this system, SEs listen directly to customers' voices. They do this, for instance, by visiting customers and conducting quality patrols in which they observe printing and processing lines where paper is used. To create even closer customer relationships, we revamped our quality assurance systems in 2013, assigning technical experts to sales divisions. In addition, to enable swift responses to diverse customer needs, regular quality-information meetings and other means are used to promote collaboration between sales and technical divisions.

Responding to instances of defective products

For defective products, action is taken by individual Group companies.

In the Paper and Paperboard Division of Nippon Paper Industries Co., Ltd., for example, sales technicians act as the central contact point, working with the relevant mill and head office departments to develop solutions by using tools such as a database of safety-related problems.



Response in the event of product defects (paper and paperboard business division)

At Nippon Paper Crecia Co., Ltd., which sells consumer products, contact information for the Customer Service Office is provided on all products and the Customer Service Office itself is placed directly under the president to ensure that all issues raised by customers are reported. Furthermore, the company's website is configured to accept customer queries and comments. The company consistently acts in good faith to ensure that customers are fully satisfied.

Verification and audit of wastepaper pulp blending ratios and use of thinned wood

Nippon Paper Industries has established a managementsystem for providing customers with guarantees that products are made with a certain percentage of wastepaper pulp content and with wood from forest thinning.

Steps are taken to manage and review production procedures at each of the Group's mills, based in part on the standards and criteria of the ISO 14001 environmental management system. The proper operation of content management systems is confirmed in internal and external audits, and customers verify that products are being manufactured to content specifications.

The Stable Supply of Products

Initiatives to Ensure Stable Production

To secure on-demand-supply, we devote considerable effort to maintaining stable production by securing reliable procurement of raw materials, and systematically maintaining and upgrading our production facilities. Sales departments and production units coordinate their activities to provide customers with reliable supplies of products by developing flexible production plans that avoid waste, and managing inventories appropriately. The Nippon Paper Group also works to ensure stable production during normal times, and has its Risk Management Committee (see P.25) formulate business continuity plans for each of its businesses in order to create a system which will enable it to limit damage and recover swiftly in times of disaster and other emergencies.

CASE **Business continuity management system**
(Nippon Paper Industries Co., Ltd. Paper-Pak Sales Division)

Nippon Paper Industries' Paper-Pak Sales Division has developed its own business continuity guidelines and established its own management system, so that it can maintain production even in times of emergency. The division is moving ahead with the selection of priority items for emergencies and procurement of key raw materials from multiple manufacturers. It has also diversified its production across multiple production sites to lower its disaster risk exposure.

CASE **Earthquake and disaster response guidelines (newsprint business)**

Newspapers are a highly public information medium, so the need for the stable supply of newsprint is especially strong. The Japan Paper Association's Newsprint Committee has therefore established guidelines for response to earthquakes and other disasters in readiness for such emergencies. In the event of damage to production equipment and facilities or disruption to communication and transportation systems as a result of a major disaster, paper companies follow these guidelines to maintain the smooth supply of newsprint.

Stabilization of Operations

The pulp and paper industry is a prime example of a process industry, where the stable operation of equipment has a direct impact on the stable supply and quality of products. Maintaining equipment is therefore critical, and proper maintenance depends on monitoring for signs of abnormalities in machinery by conducting vibration and temperature checks.

CASE **Development and introduction of "e-musen junkai" (e-wireless patrol) system**

Nippon Paper Industries (NPI) and NIPPON PAPER UNITEC have developed—and are now operating—the "e-musen junkai" (e-wireless patrol) system, which uses wireless sensors to constantly monitor machinery and equipment for signs of abnormalities. In the past, signs of abnormalities have been discovered mainly by people patrolling production facilities. This approach depended greatly on unquantifiable skills and expertise in the form of the experience and intuition of those checking production facilities. With the e-wireless patrol system, IoT technology is used to accumulate temperature and vibration acceleration

data on equipment in operation, enabling us to monitor trends in this numerical data. Responding appropriately when an abnormal trend is detected helps to prevent equipment problems and stabilize operations (see P.44). NPI is installing the e-wireless patrol system at all of its domestic mills and actively selling it to companies outside the Group. In response to requests from domestic clients, as of fiscal 2019, it has also commenced overseas sales in Thailand.

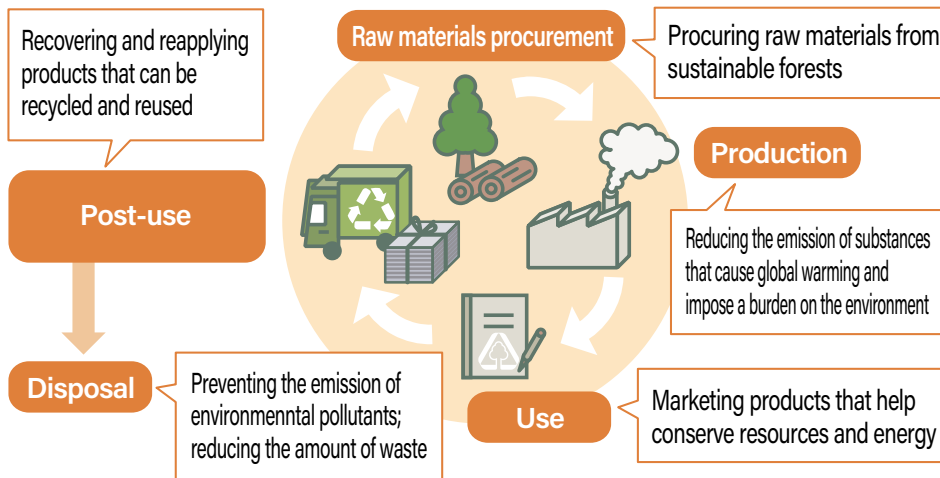
➔ "e-musen junkai" (e-wireless patrol) system webpage (Sales company: Sakurai Co., Ltd.)
<http://www.sakurai.co.jp/landing/e-musen/index.html> (Japanese Only)

Products that Contribute to Building a Sustainable Society

Basic Stance

Nippon Paper Group products use wood raw materials, which are renewable biomass resources, and are also recyclable. This gives them a high affinity with the concept of building a sustainable society. Based on this, each Group company strives to develop products that are cognizant of the environment at every stage, beginning with raw material procurement and proceeding through production, consumption, post consumption, and disposal. For example, replacing plastic products with paper alternatives increases the biomass ratio and makes their raw materials sustainable. They can also be recycled after use, which enables reductions in the quantity of waste produced. By devising inventive shapes to improve loading efficiency, the use of paper can also lead to a reduction in CO₂ emissions during transportation.

Environmental consideration from the product life cycle



CASE Obtaining certifications for Paper-Pak products (Nippon Paper Industries Co., Ltd.,)

Nippon Paper Industries (NPI)'s Paper-Pak Sales Division obtained CoC certifications from the FSC® (FSC® C128733) and PEFC (PEFC/31-31-171) international forest certification organizations in February 2016. It took this step to enhance appreciation of Paper-Pak products and improve the company's brand image by promoting the environmental

advantages of Paper-Pak products over other types of containers, such as plastic bottles and metal cans. The division is working with the aim* of supplying Paper-Pak products marked with the forest certification symbol to all customers by fiscal 2020.

*NPI was able to place forest certification logos on approximately 1 billion Paper-Pak products in fiscal 2019, up from approximately 500 million in fiscal 2018.

CASE SPOPS® New Style Refill Containers (Nippon Paper industries)

Nippon Paper Industries has developed and commercialized SPOPS®, a replaceable paper container designed to take the place of plastic pouches for refills of shampoo and other products. The container eliminates the need for pouring from a pouch into a dispenser; product refills are accomplished simply by replacing a cartridge (see figure). SPOPS® reduces the amount of time required for refills, its shape minimizes the amount of liquid residue leftover and offers greater stability enabling more compact storage, improving usability for customers. Since February 2019, the product has been adopted for body soap and other hotel amenities, as we move toward with full-scale sales activities.



POINT **Environmentally friendly point**
SPOPS® helps to minimize marine plastic waste, improves recyclability and reduces packaging volume (improving transportation efficiency)

→ <https://www.nipponpapergroup.com/products/package/development/spops.html>

CASE SHIELDPLUS® Series paper barrier materials (Nippon Paper Industries)

Utilizing its paper manufacturing and coating technologies developed over the course of many years in the industry, Nippon Paper Industries (NPI) has developed SHIELDPLUS®: an environmentally-friendly packaging material with similar barrier properties to plastic. Performing as well as existing products, SHIELDPLUS® offers outstanding barrier properties and can be used as a substitute for other barrier films. Sales of the product began in November 2017, and it has since been adopted as a packaging material for confectioneries and daily use products. Nippon Paper Group company Jujo Thermal (Finland) has also made capital investments with the aim of beginning full-scale production in Europe.

NPI is also engaged in development efforts with a view to mass production of SHIELDPLUS PREMIER®, which offers an

even higher level of barrier performance.



[Example of use] Motto Yasashii Ukai Senbei rice cakes (Nagaraen Co., Ltd.)



[Example of use] Cacao 70% chocolate (Conche)



Environmentally friendly point
SHIELDPLUS® helps to minimize marine plastic waste and improves recyclability

➔ https://www.nipponpapergroup.com/products/package/thick_paper/post.html#adopt

CASE LAMINA® heat shield paper that enables packaging to be made from paper alone (Nippon Paper Industries)

Nippon Paper Industries has applied its paper manufacturing and coating technologies developed over the course of many years in the industry to develop LAMINA®: a packaging material that enables the creation of packaging using only paper, without the use of plastic. This packaging material uses paper as the base material, and enables the creation of packaging without laminate processing. LAMINA® can be used for a wide range of applications, including

food products that do not require barrier-type packaging, secondary packaging, daily use items and magazines.



Environmentally friendly point
LAMINA® helps to minimize marine plastic waste and improves recyclability

➔ https://www.nipponpapergroup.com/products/package/thick_paper/lamina.html

CASE NSATOM® new aseptic filling system for paper containers (Nippon Paper Industries)

Nippon Paper Industries (NPI) and Shikoku Kakoki have developed and launched NSATOM®: an aseptic filling system for paper packaging that supports filling with solid-particle, long-fiber and high-viscosity products.

With its innovative shape, the newly developed NSATOM® satisfies needs for solid particle, long-fiber and high-viscosity products in response to growing consumer health-oriented

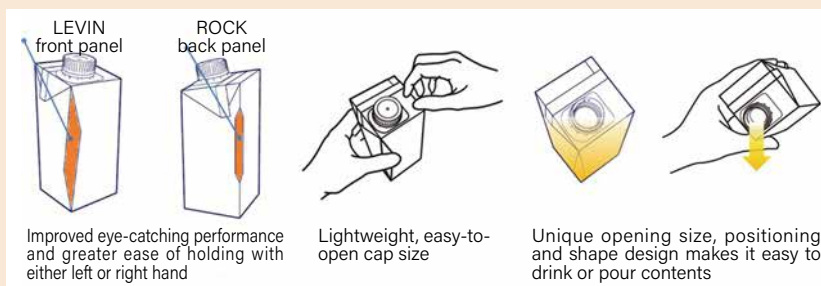
attitudes. It also offers portability due to its resealable design. Moving forward, NPI will propose these paper packages for a wide range of applications, as an alternative to plastic containers.



Environmentally friendly point
NSATOM® helps to minimize marine plastic waste and improves recyclability



NSATOM® products



Improved eye-catching performance and greater ease of holding with either left or right hand

Lightweight, easy-to-open cap size

Unique opening size, positioning and shape design makes it easy to drink or pour contents

➔ https://www.nipponpapergroup.com/products/paper_pak/nsatom/nsatom.html

CASE MinerPa® new functional material (Nippon Paper Industries)

Nippon Paper Industries has applied its many years of experience with technologies for manufacturing pulp and inorganic materials to develop MinerPa®: a new material in which particulate minerals are densely bonded to the surface of wood pulp (cellulose fiber).

Using wood pulp—which is a recyclable natural fiber—as its basic raw material, MinerPa® is a functional material that offers the unique formability of pulp together with various functions derived from minerals, including deodorizing / antibacterial properties, flame retardancy, X-ray radiation

→ <https://www.nipponpapergroup.com/research/organize/minerpa/>

shielding effects and antiviral properties.

In fiscal 2018, the established a demonstration plant at the Fuji Mill (Fuji, Shizuoka Prefecture), and is now scaling up demonstrative trial production.

This facility has an annual production capacity of at least 450 tons, and the company has established a system for the full-scale distribution of samples with an eye toward commercialization.

**POINT** Environmentally friendly point

New material based on renewable tree fiber

CASE SilFeel® and NPNatural™ paper straws (Nippon Paper Industries)

In response to rapidly growing demand for alternatives to plastic in recent years, Nippon Paper Industries (NPI) has developed highly durable paper straws with a pleasant texture. Sales of these straws began in 2019. (Straws produced in Japan are called SilFeel®, while those produced overseas are called NPNatural™.)

SilFeel® straws have already been adopted at numerous stores, including restaurants, cafes and shopping center food courts. They were also awarded a prize in the daily use item category of the 32nd Shogakukan DIME trend awards in 2019.

**POINT** Environmentally friendly point

SilFeel® helps to minimize marine plastic waste, improves recyclability and uses paper from certified forests*

*Paper sourced from forests that have been certified by a third party as implementing sustainable forest management.



[Example of use] AlohaTable (photograph obtained with cooperation from AlohaTable Daikanyama)

→ <https://www.nipponpapergroup.com/products/paperstraw/>

CASE Scottie® Flowerpack four-roll, triple-length (double) long-lasting toilet paper (Nippon Paper Crecia)

Nippon Paper Crecia has developed and launched a longer lasting toilet paper roll, which increases usability for customers and also contributes to reducing environmental impact.

The Scottie® Flowerpack four-roll, triple-length (double) pack offers rolls that are three times longer than previous versions. This reduces the time and effort of replacing spent toilet paper rolls and reduces the amount of storage space required, enabling more effective use of available space. The rolls are also compact and highly portable, offering greater usability for customers. The product also contributes to reducing

→ <https://scottie.crecia.jp/3bai/smp/>

environmental impact*, such as by reducing the need for secondary materials such as toilet roll cores and cutting CO2 emissions by improving loading efficiency during transportation.

*Comparison with Scottie® Flowerpack 12-roll (double) pack.



Scottie® Flowerpack four-roll, triple-length (double)

**POINT** Environmentally friendly point

Resource saving and improved loading efficiency (transportation efficiency)