

Promotion of Resource Circulation

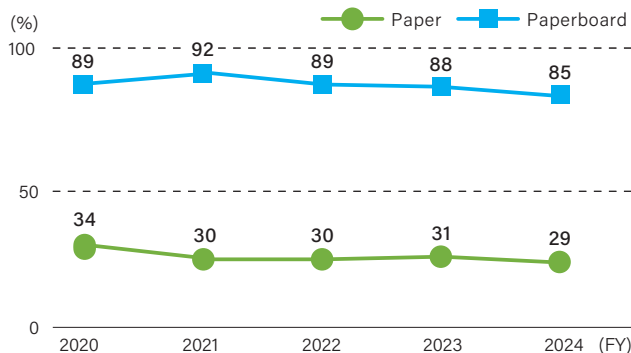
1 Basic Policy

📖 → P94 NIPPON PAPER GROUP Environmental Charter

2 Initiatives for Using Wastepaper

NIPPON PAPER GROUP considers wastepaper as important raw material and is working on the recycling of unused wastepaper.

Trend of Wastepaper Utilization Rate (in Japan*)



* From FY2021, Crecia Kasuga is also included in the scope

CASE STUDY

Launch of Recycling Facilities for Food and Beverage Paper Containers (Nippon Paper Industries)

In 2022, the Company's Fuji Mill began operating facilities dedicated to producing recycled pulp from wastepaper of food and beverage paper containers, and in 2023, the Company began operating shredding and washing plant in the Kanto region. Using wastepaper derived from food and beverage paper containers that have been sorted accurately makes it possible to produce high-quality recycled pulp that has a high degree of brightness. By leveraging the characteristics of recycled pulp produced at this plant and promoting their recycling into various paper products with high added value, the Company will popularize the recycling of used paper containers and build a new resource circulation business.

CASE STUDY

Paper Cup Recycling through Three-Company Collaboration with JAL and TOKAN KOGYO (Nippon Paper Industries)

(Nippon Paper Industries)

Since 2022, the Company has collaborated with Japan Airlines Co., Ltd. (JAL) to recycle paper cups and other items. The JAL Group properly sorts and collects the paper cups used in some domestic in-flight services, while NIPPON PAPER GROUP provides a unique route for their transportation, accumulation, and packing. This recycling project was initially limited to materials such as containerboards. However, through a three-way collaboration with paper cup manufacturer TOKAN KOGYO CO., LTD., in 2024, the Company became the first in Japan*¹ to achieve horizontal recycling, turning paper cups back into paper cups*².

*1 According to research by the Company

*2 Recycled paper containing used paper cups is used as part of the raw material

Recycling of Paper Containers from Restaurants, Sporting Events, and the Like (Nippon Paper Industries)

Since 2024, the Company has collaborated with McDonald's Company (Japan), Ltd., collecting used paper cups from four of its stores in Saitama Prefecture and recycling them.

The Company recycled the paper cups used by roughly 40,000 runners in Tokyo Marathon 2025. Similar recycling efforts are being carried out in marathons nationwide.

The Company has also begun collecting and recycling used paper containers at games played by Alvark Tokyo, a B. LEAGUE professional basketball team.

In this way, the Company is working to tackle environmental issues by recycling difficult-to-use wastepaper in various situations and by supplying recycled paper products.

It is also continuing its efforts with Kandu to foster greater awareness among the children who will be responsible for the recycling of the future, aiming to raise future recycling rates.

Upcycling Project of Used Paper Containers Centering on "choito"[®] (Nippon Paper Industries, NP Trading)

In 2024, the Group launched "choito"[®], a brand of fabric products partially made of paper yarn from used food and beverage paper containers. Through this project, the Company has begun recycling collected used paper containers into high-quality recycled pulp at the Company's Fuji Mill and producing fabric products, such as towels and aprons, using paper yarn created from the pulp. Products with original tags and embroidery have been sold based on requests from Japan Airlines Co., Ltd., Kyobashi-Sembikiya, Ltd., and the UCC Group. Through this project, the Company is promoting collaboration with many business partners and is helping expand the recycling of used paper containers which were previously disposed of.

Initiatives to Recycle Release Paper (Nippon Paper Industries)

The Company produces base paper for the release paper used for stickers and labels. It is implementing initiatives to recycle release paper, which has been disposed of in the past, from the perspective of extended producer responsibility. Currently, used release paper is collected and recycled into materials such as containerboards and notebook covers. The Company also coordinates with Japan-Earth Conscious Labeling association* (J-ECOL) to collect used release paper from users such as Nichiban Co., Ltd. and recycle it. To make it easier to recycle release paper, the Company proposes the use of base paper for release paper (paper coated on one side) that does not need a layer of PE laminate, thereby contributing to the reduction of plastic consumption.

* This association was founded in May 2023 to promote the resource circulation of used release paper. It consists of companies and organizations related to the use, production, and recycling of stickers and labels

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CASE STUDY

"Closed Loop" Initiatives (Nippon Paper Industries)

The Company has established a "closed loop" scheme in which it directly purchases wastepaper from its customers in order to make long-term, stable use of collected waste newspaper and catalog paper as a raw material. In April 2023, the Company signed a new contract with DINOS CORPORATION regarding the sale and recycling of wastepaper, for the purpose of domestic circulation of resources by building a "closed loop" of catalog wastepaper, and started operations.

Collection and Recycling of Paper Cups (Nippon Paper Industries)

Since 2019, the Company has been collecting used paper cups at its head office and recycling them as raw materials for containerboards at its Ashikaga Mill. In FY2024, the Company collected approximately 175,000 paper cups.

Paper Carton Recycling "PakUpcycle®" (Nippon Paper Industries)

The Company has conducted various initiatives with a catch phrase of "PakUpcycle®," coined by the Company by combining "Pak" (beverage paper pack) and "Upcycle" (to reuse unnecessary items through processing to add value as a product).

<Paper-Pak Carton Collection and Recycling>

The Company has installed Paper-Pak collection boxes at Group company sites and is working to increase employee awareness of paper pack recycling. In addition, the Company has positioned the collection of paper packs as an activity that enables society as a whole to make effective use of resources, and is working with collection companies to strengthen the efforts to promote recycling at various facilities and schools. In 2017, the Company commenced collection activities using a proprietary method, primarily in Nerima City, Tokyo. The collected paper packs are used as raw material for household paper products. (Results for FY2024: 4.3 tonnes)

<Recycling of Beverage Paper Packs with Aluminum>

The Company is working with RIPRO Corporation, Japan, and Hagihara Industries Inc. to jointly develop uses for a mixture of polyethylene and aluminum ("PolyAl") in order to perform material recycling* of the mixture that is processed as waste during the process of recycling beverage paper cartons made with aluminum. Boundary piles made from PolyAl are used by several forest cooperatives.

* Recycling method in which waste is recycled as raw material for a new product

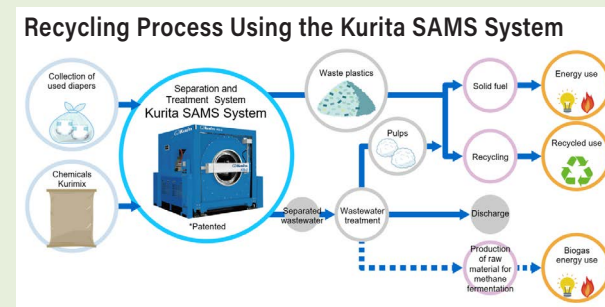
<Recycling of Milk Paper Packs from School Lunches>

In 2023, School POP® → P62 was adopted by CHUOMILK, which supplies milk for school lunches in areas surrounding Toyohashi City. In response, Toyohashi City began recycling school lunch milk paper packs to reduce waste and recycle resources, and to promote environmental education at schools it also holds activities such as visiting lectures. Employees of the Company, together with employees of CHUOMILK, participated in this visiting lecture to help with instruction and with a paper-making workshop. The Company has received feedback from schools that says that the lectures stimulated students' interest in recycling and taught them the importance of milk.

Joint Development of Environmentally Friendly Paper Diapers with Kurita Water Industries (Nippon Paper Crecia)

Most of the used diapers in Japan are incinerated in general or industrial waste treatment plants. As Japan's population ages, the volume of used paper diapers is forecast to increase, so there is a rising need to recycle them. Group company Nippon Paper Crecia is developing environmentally friendly paper diapers with Kurita Water Industries Ltd. ("Kurita Water Industries"). In this development project, Nippon Paper Crecia is providing information regarding paper diaper products and Kurita Water Industries is providing information about separation and processing performed using the Kurita SAMS System. Together, they are deliberating product specifications for paper diapers

that would increase the quality of separated and processed plastic and pulp materials. Through the project, the companies are helping create a recycling-based economy and society and realize a decarbonized society with the aim of further contributing to societal sustainability.



Start of Empty Tissue Box Recycling Verification Testing in Soka City (Nippon Paper Crecia)

Group company Nippon Paper Crecia has signed an agreement on initiatives for creating a recycling-based society with Soka City, Saitama Prefecture. From April 2024, it has launched an empty tissue box recycling verification project in five public facilities within the city. The collected empty boxes are reused by the Group as raw material for cardboard, and Nippon Paper Crecia is donating toilet paper to elementary schools and junior high schools in the city based on the amount of empty tissue boxes that are collected. Some of the collected boxes are turned into miscellaneous paper storage bags and distributed to elementary schools in Soka City to deepen students' understanding of recycling. Nippon Paper Crecia will continue to strengthen its collaboration, promoting paper recycling and contributing to the realization of a sustainable society.