







# **Message from the President**

UNITIKA Group Corporate Social Responsibility Report 2010

# From compliance to environmental initiatives

Towards the promotion of CSR initiatives to continue being a company that is trusted by society



Kenji Yasue President / Jasue

At the Unitika Group, we are committed to a wide range of initiatives targeting enhanced enterprise value and long-term corporate growth. The basis of these initiatives is formed by development and enhancement of our business as well as by establishing a robust cooperate structure that provides us with the ability to respond to significant changes in the business environment. However, we are also acutely aware of how our business initiatives are intertwined with our corporate social responsibility (CSR), and we understand that it is absolutely essential for a better enterprise value to establish a relationship of trust with our stakeholders. For the Unitika Group, this approach has always demonstrated our commitment to our corporate social responsibility and social contributions through a variety of initiatives. In particular, we view those initiatives related to addressing environmental issues, ensuring legal compliance, implementing internal audits and controls, and managing safety and risk as areas of fundamental importance. Our CSR Office. which was established in July, 2008, is actively promoting these initiatives under a promotion system headed by the Director in charge and managed by full-time senior management staff.

Among the most important of Unitika's CSR initiatives are those that address environmental challenges. The planet's environmental woes, together with the problem of dwindling energy resources, constitute a common problem for humankind that needs to be approached in an integrated manner. Concrete, national-level responses to address these issues are underway. Spurred by the need to respond to the currently stagnating economy, particular focus is being given to initiatives to reduce greenhouse gases in response to global warming and to develop alternative energy sources and create a society committed to recycling resources in response to increased demand for resources, mainly from emerging nations. With these trends in international society, the CSR of individual companies is becoming increasingly more important, and in keeping with our Group ideal of "contributing to society by linking lifestyles and technologies," we are pursuing a range of initiatives in harmony with our Group business activities.

Specific environment initiatives that we are currently pursuing include the development of plastics and deployment of water treatment technologies aimed at reducing environmental load and facilitating recycling, the development of plant-derived biomass plastic Terramac®, and the implementation of surveys, analytical studies, and environmental assessments of air, water, and soil to ensure environmental preservation. We are also promoting Group-wide registration for the ISO 14001 environmental management standards at our major facilities and Group companies. Moreover, our main plants have converted from oil to natural gas for their energy requirements. Clearly, in terms of both our business and operations, we have been focusing on the most pressing environmental issues.

Legal compliance is a natural obligation for any company, and at Unitika we strive to ensure that all Group Directors and employees always demonstrate an awareness of legal compliance in the conduct of their duties. Specifically, we instituted the Unitika Action Charter in 2008, and later set out the Unitika Action Standards, based on the charter. We take a variety of opportunities to ensure that everyone in the Unitika Group is familiar with these documents, and work via the internal compliance committee to understand how they are being implemented and to provide organizational education. The Unitika Group will continue to these kinds of initiatives in the future, and will act in a manner so as to uphold the longstanding trust that we have built with our external stakeholders since we began operations in 1889.

We promote a variety of comprehensive and systematic CSR initiatives including the maintenance and operation of an internal control system-a legal and standard requirement for companies; efforts targeting the improvement of safety management standards in a variety of situations both inside and outside the company, for example product quality control and factory operation; and the implementation of a risk management system to prevent the loss of trust in the company due to unforeseen events and circumstances.

Under our new three-year medium-term management plan, "Reform 2011", which began in April, 2009, we have been cultivating eco-friendly business models as reflected by our recycling business, our environmental materials business, and our reputation as a manufacturer of Terramac. This testifies to our management vision as a good corporate citizen contributing to a healthier environment and a more comfortable way of life. Through such undertakings, we will continue our efforts to remain a trusted corporate presence in society and to achieve our operational goals. We will pursue these objectives based on the spirit of CSR demanded of us as a good corporate citizen, from legal compliance and similar matters that require detailed attention as part of everyday corporate activities to efforts aimed at tackling larger problems such as how to address environmental issues.

I trust this report clarifies our commitment to the CSR initiatives the Unitika Group is pursuing as a responsible corporate citizen, and I welcome your support as we pursue these initiatives.

# Milestones 120 years of Unitika

UNITIKA Group Corporate Social Responsibility Report 2010

1889 1950 1960 1970 1980 1990 2000

**◆**1964

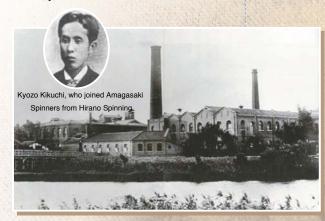
**◆**1966

established

**♦1889** 

Amagasaki Spinners Ltd., established.

Amagasaki Spinners Ltd., the forerunner of Unitika, was originally established with the twin aims of alleviating poverty amongst former feudal retainers following the abolition of the feudal system and encouraging local industry.



**◆1890** 

Over 30,000 people flock to public unveiling of head office factory.

**◆**1893

Nippon Rayon Co., Ltd. established.

- · Telephone poles and copper wire (telephone wire) installed and donated to the Osaka Telephone Exchange.
- · This is said to be the reason why the area code for Amagasaki is 06 (the Osaka area code,) despite the fact that the city is located in Hyogo Prefecture.

♦1907

Elementary school for children of workers constructed.

**◆**1918

Company name changed to Dainippon Spinners Co., Ltd.



1960

Death of Emperor Taisho. Emperor Showa ascends the throne on December 25

1950

1914 Outbreak of First World War

Japanese government launches Income-doubling Plan. rapid economic growth.)

1970

Expo '70 held in Osaka.

♦1989

Unitika celebrates its 100th year of operation



**\$2004** 

Gas cogeneration facilities introduced at Uji Plant



**◆1998** 

Unitika develops Terramac, a plant-derived biomass plastic.

**\$2009** 

Unitika celebrates its 120th year of operation.

**◆**1968

Nippon Ester Co., Ltd.,

Nylon film plant completed.

Japanese women's volleyball team-composed

mainly of members of the Nichibo Kaizuka Women's

Volleyball Team-wins gold at the Tokyo Olympics.



**◆1973** 

(Jun Fubuki)

Unitika's first Mascot Girl.

1969

Nichibo and Nippon Rayon merge to form Unitika



What's in a name?

The name "Unitika" is a portmanteau word created from a Japanese rendering of the words "United", "Niti" (a phonetic representation of the first Japanese character in the names "Nichibo" and "Nippon Rayon") and chosen to show the strong ties binding Nichibo Co., Ltd.

1980

●Unitika Museum●

(Former head office of Amagasaki Spinners Ltd.)

The building that housed the head office of Unitika's forerunner, Amagasaki Spinners, was completed In 1900, ten years after the founding of the company. It has been restored as a museum and is now open to the public. Materials from the company's early days and a substantial collection of photographs are on display. As the oldest extant example of Western-style architecture in Amagasaki, the museum is a registered cultural and historical site, and is one of



- Opening days: Wednesdays (Irregular closing days. Please call to confirm before visiting
   Opening hours: 10:00-12:00 and 13:00-15:00

- Ing nodes.
  ssion: Free
  fries: +81-6-6481-0525
  ss: 7 mins walk, 450 m to the southeast of Hanshin Daimotsu Stati

1990 2000

Death of Emperor Showa. Emperor

2001 September 11 terrorist attacks. Great Hanshin Earthquake Heisei ascends the throne on January 8 strikes Kobe 1998

2008 Lehman Brothers bankruptcy. Reunification of Germany Nagano Olympics held

1991First Gulf War breaks out. Collapse of Japan's asset price bubble.

1889

1889 Meiji constitution enacted

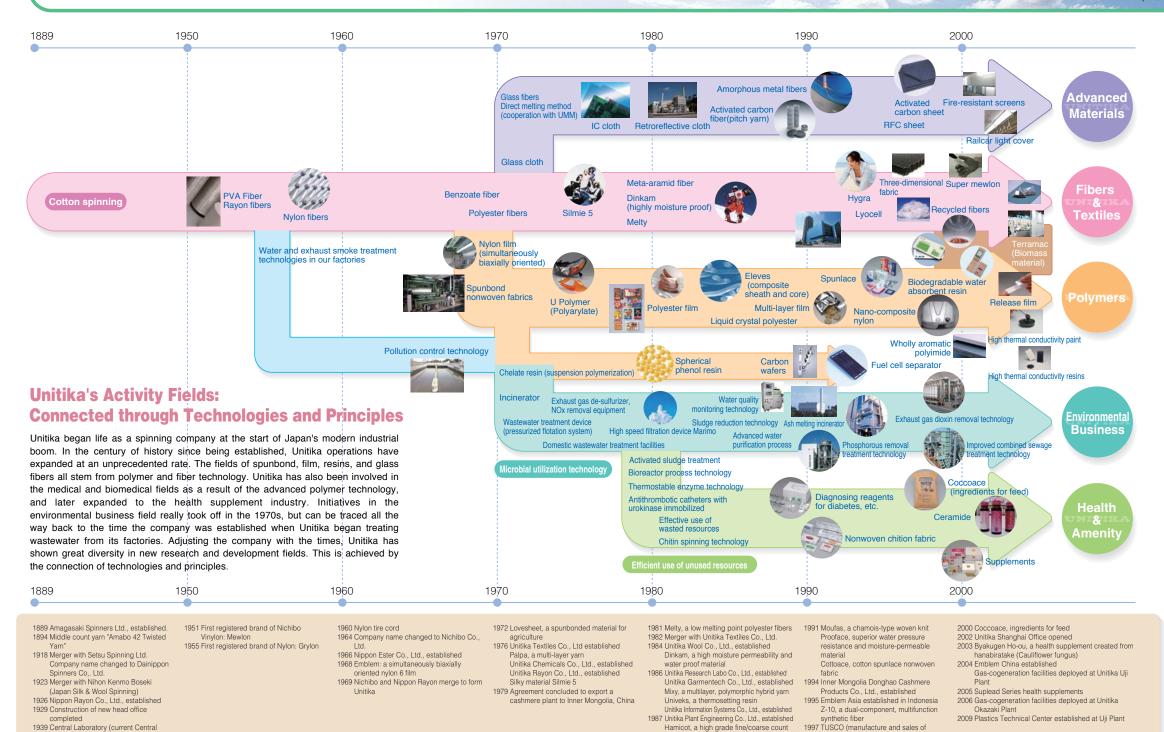
Great Kanto

1941 Pacific War breaks out

1923

# **Activity Fields**





cotton yarn

1988 Solar , a thermal storage and heat retaining fiber

Beschitin W, a wound dressing material Ad'All Co., I td., established

polyester spunbond) established in

Lyocell, a flux yarn cellulose fiber 1999 Unitika Textiles Co., Ltd., established Unitika Fiber Co., Ltd., established

Research Laboratory) set up at the Uji





# Unitika's 2010 Mascot Girl ERICA'S Activity Report

Since her debut in December last year, Unitika's latest mascot girl, Erica, has been busy in attending exhibitions and special events, and visiting plants. Here we report on what Erica has been up to.

# Attending the Eco Products 2009 Exhibition

The Eco Products 2009 Exhibition was held at the Tokyo Big Sight exhibition center from December 10-12, and Unitika's mascot girl, Erica, was one of the first through the doors. This year's event-the forth ever held-was attended by a record 182,510 visitors. For the first time, Unitika's booth was designed in the style of a café the "Unitika Eco Café" with a "life-friendly" theme.

The booth promoted the Unitika Group's



wide-ranging business interests, displaying a variety of products including film, nonwoven cloth, and plastics made from Terramac (a plant-derived biomass material,) as well as products made from Castlon and Uniecolo, and recycled plastics from Terabo Co., Ltd.

As it was Erica's first official job in her role as mascot girl, she was a little nervous at the beginning. Dressed in clothing made from Terramac, Erica promoted Unitika products, participating in an interview, and held a rock-paper-scissors competition with booth visitors.

# Fishing Show Osaka 2010

Unitika also had a booth at the Fishing Show Osaka 2010, which was held at the Intex Osaka exhibition center from February 5-7. Erica attended the event as a special guest on the 6th and 7th, when the venue was open to the general public.

The Unitika booth displayed Silver



Thread Arancia trout line and a range of other fishing line products for various different types of fishing. The booth proved very popular with visitors thanks to an action-packed schedule that included a seminar hosted by fishing pros, Hiro Naito, Yumiko Ishikawa, and Masahiro Sugihara; a Q&A session conducted by Isao Okada; and a panel discussion featuring Unitika's squid lure fishing pros, Masahiro Sugihara, Kazuo Yuge, Norihiro Shigemi, and Nobuaki Hiramatsu.

Erica joined in every seminar and panel



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discussion. In the seminar led by Masahiro Sugihara, the audience was all ears as Erica talked about her first experience lure fishing for squid under Sugihara's expert instruction. At the end of each talk, Erica was kept busy with a rock-paper-scissors competition where visitors had the chance to win autographed calendars.

# Promoting Unitika Fishing Line

Erica appeared as a guest to promote Unitika fishing line in the June edition of a regular column written by Unitika fishing pro, Yumiko Ishikawa, in fishing magazine, Angling Fan.
Under Yumiko's expert tutelage, Erica tried her hand at trout fishing for the first time at two popular fishing spots in Shizuoka Prefecture. Though only her



second time fishing, Erica successfully hooked a trout using Unitika fishing line, and was featured in a four-page article. You can see Erica battling the trout on the Unitika Fishing Land and 2010 Mascot Girl websites.

Unitika Fishing Land website (in Japanese only) http://www.unitika.co.jp/fishing/ ● 2010 Mascot Girl website (in Japanese only) http://www.unitika.co.jp/mg/2010/

# Visiting a Unitika Plant

Not forgetting that one of the most important roles of the Unitika mascot girl is encouraging Unitika employees, Erica visited Unitika plants to chat with the staff

Her first visit was to the Uii Plant in Kvoto Prefecture, where polymer films, one of Unitika's stable income earners, are manufactured. It was Erica's first visit to a factory. After passing through the air showers, the tour began in earnest. Erica was very interested in the machines that make Unitika's proprietary biaxially oriented nylon film and in the manufacturing process. After touring the factory floor, Erica visited each department where she posed for photographs, signed autographs, and enjoyed chatting with employees. Afterwards, Erica paid a courtesy visit to the mayor of Uii. an event that was covered by the local newspaper. indicating the degree of attention given to her visit

Erica's second factory visit was to the Okazaki Plant in Aichi Prefecture. Here she visited the nonwoven cloth manufacturing department. After listening to an explanation of the manufacturing process and products, the tour proceeded to the factory floor





itself. Erica was surprised by just how many Unitika products she had used on a daily basis without realizing. Unitika products are everywhere. Erica stopped to chat with plant employees before rounding up her tour.

Having visited two Unitika plants, Erica showed her strong commitment to her role as company mascot girl. "I really learnt a lot touring the plants. It made me determined to learn more about Unitika products so that I can promote them more effectively." We wish her the best as she continues to visit Unitika plants around the country.



# ERICA Mascot Girl Profile

- Name: Erica
- Date of birth: March 19, 1990
- ♦ Home town: Tokyo
- ◆ Star sign: Pisces
- Height: 164 cm
- ◆ Hobby: English conversation
- Sports: Basketball and volleyball
- ◆ Likes: Painting
- Favorite season: Summer! I don't cope well with the cold, so I love summer.
- ◆ Favorite actor/actress: Nicole Kidman
- ◆ Favorite singer: Ne-Yo
- Dream job: Actress. I'm taking acting and dance lessons at the moment



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# **Notes on FY 2010 Report**

# **■** History of Report

This report was originally issued as the Unitika Environmental Report, a document which detailed Unitika's various environmental and social related activities. By 2006, the Report has expanded CSR coverage, reflecting the growing importance of this area and greater attention it is receiving in Japan. The CSR information includes topics such as corporate governance, internal control and other principles and systems in use by the Group. The Report is now issued annually as CSR Report.

- 2002-2005 Unitika Environmental Report
- 2006- Unitika CSR Report

# **■** Period Covered by Report

This report covers principally the period from April 1, 2009 through March 31, 2010, however it does address certain items, and events arisen after April 1, 2010.

# **■** Reference Guidelines

This report refers to the Environmental Report Guidelines (2007 edition) issued by the Ministry of the Environment.

**Internal Group Companies** 

# **■** What This Report Covers

This report in principle covers activities by Unitika, Ltd.'s domestic production sites and the Unitika Group companies including those overseas and Environmental Report covers the following range of items.

#### Unitika Production Sites in Japan

Central R&D

Laboratories

Uji Plant Ad'all Co., Ltd.

Okazaki Plant Nippon Ester Co., Ltd.

Sakoshi Plant U-ai Electronics Corp.

Tarui Plant Unitika NP Cloth Co., Ltd.

Toyohashi Plant Unitika Environmental Technical

Tokiwa Mill Center Co., Ltd.

Kaizuka Office Unitika Glass Fiber Co., Ltd.

Unitika Plant Engineering Co., Ltd. Unitika Textiles Ltd. Unitika Fibers Ltd. Unitika Logistics Co., Ltd.

#### **External Group Companies**

I-Tex Co., Ltd.
Osaka Dyeing Co., Ltd.
Diabond Chemical Co., Ltd.
Terabo Co., Ltd.
Union Co., Ltd.
Unitika Sparklite., Ltd.
Unitika Spinning Co., Ltd.
Unitika Berkshire Co., Ltd.

# ■ Date of Issue

This report can be accessed on Unitika's company website from October 2010. In light of the potential environmental impact, no printed version is issued.

# ■ Next Report

October 2011

#### ■ Unitika ProductionSites in Japan

- OCSR: Corporate Social Responsibility.
- $\bigcirc \, \text{Stakeholders: Customers, shareholders, suppliers, society, local communities, employees, and other individuals and organizations that have the state of the communities of the c$
- ovested interests in a company.
- Ocompliance: The observance of laws and corporate ethics.

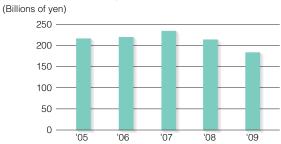


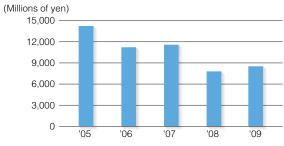
UNITIKA Group Corporate Social Responsibility Report 2010

# **Company Overview**

- Name: Unitika Ltd.
- Founded: June 19, 1889
- Capital: 23.8 billion yen (as at March 31, 2010)
- Osaka Headquarters Osaka Center Bldg., 4-1-3 Kyutaro-machi, Chuo-ku, Osaka, 541-8566 Japan
- Tokyo Head Office JP Bldg., 3-4-4 Nihonbashi-Muromachi, Chuo-ku, Tokyo, 103-8321 Japan
- Central Research Laboratory 23 Uji-Kozakura, Uji-shi, Kyoto, 611-0021 Japan
- Number of employees (consolidated): 5,037 (as at March 31, 2010)
- Sales (consolidated): 182.2 billion yen (FY 2009)
- Main business areas (consolidated): Polymers (films, resins, spunbond), environmental/advanced materials (engineering, pharmaceutical products, functional materials), fibers (synthetic and natural fiber yarns, staple fibers, woven and knitted fabrics), health & amenity products, other business areas (As of March 31, 2010)

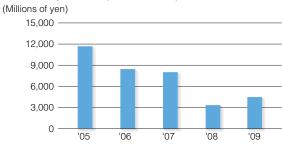
#### ■ Sales(Consolidated)

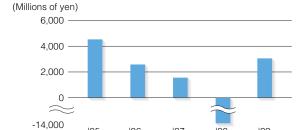




# Operating Profit (Consolidated)

# Ordinary Income (Consolidated)





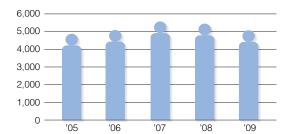
'07

'08

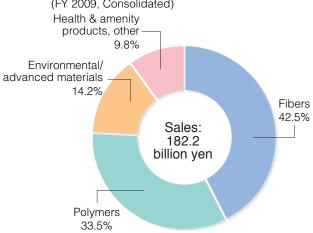
'09

'06

# ■ Employees (Consolidated)



# Sales Share of Each Business Unit (FY 2009, Consolidated)



Company Overview

'05

■ Net Profit (Consolidated)



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# **Management Philosophy**

# "Contributing to society by connecting persons' living to technologies"

The Unitika group's management philosophy is to contribute to society by connecting people's lives to technology. Unitika aims to achieve its management vision of being a company with a clear social presence that contributes positively to the environment and to people's lives.

The Unitika Group Slogan



There is an unimaginable number of people in the world. There is an unimaginable number of dreams and hopes.

The Unitika Group aims to unite all of these with one desire. One desire to improve the lifestyle of persons, living together in harmony within the global environment.

Unitika has the creative power to bring about this way of thinking. We also possess the technology and energy to turn these possibilities into realities. We have taken the time to unite all the companies involved in our various businesses, ensuring we are operating at full capacity through unification of our capabilities across numerous fields.

Unitika consistently strives to work together toward this goal. The possibility of improving persons' lifestyle - We Realize It! - We are the Unitika Group.

# **Corporate Governance**

Unitika aims to be a company with a clear social presence that contributes positively to the environment and to people's lives.

Under this management vision the Unitika group will implement ongoing corporate governance initiatives.

# Basic Policy for Corporate Governance

Through our management philosophy of contributing to society by connecting people's lives to technology, we at the Unitika Group aim to be a company with a clear social presence. We strive to achieve stakeholder-focused management by pursuing governance strategies that include the enhancement of legal compliance and risk management and the timely and appropriate disclosure of information, and the implementation of rapid decision making. The Unitika Group considers that its pursuit of the creation of a management system focused on these goals will allow it to maximize corporate value amidst the globalization of the business environment.

# Implementation

Unitika employs an Executive Director System that clearly distinguishes operational decision-making and supervisory functions ('governance') from business execution functions ('management'). At the same time, we also use a system wherein directors also serve as executive officers in order to enhance coordination between directors and executive officers and improve the agility and effectiveness of management.

We have positioned the Board of Directors as a governance organization focused on management decision-making and supervision. Meanwhile, we have established the Management Strategy Council, which is responsible for the early identification of management issues, the streamlining and acceleration of policymaking and implementation, and the appropriate and timely implementation of policies and measures, in addition to facilitating more in-depth discussions amongst directors on policies and issues pertaining to all aspects of the Group's management.

While we have already established Authorization Regulations that set forth provisions regarding the execution of business, we employ a decision-making system in which items of business of particular importance are discussed and deliberated on in advance by the Management Strategy Council before consulting the Board of Directors.

Our internal control system can respond at the appropriate time and consists of a variety of organizations including the CSR Office, which is staffed by ten permanent employees and is the body primarily responsible for gathering information from within the company and the group; the Compliance Committee, which is chaired by the President; and whistleblower contact points both inside and outside the company.

Furthermore, we work to educate our staff regarding legal compliance by conducting suitable training through the CSR Office and distributing the Unitika Action Charter and the Unitika Action Standards to all group employees in addition to other initiatives.



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# **Internal Control**

In April 2007, we created the Internal Control Promotion Office, and began implementing internal control for financial reporting. In July 2008, we established CSR Office by integrating all the sections related to internal controls.

# Basic Policy

Unitika's Basic Policy for Internal Control consists of the following nine items

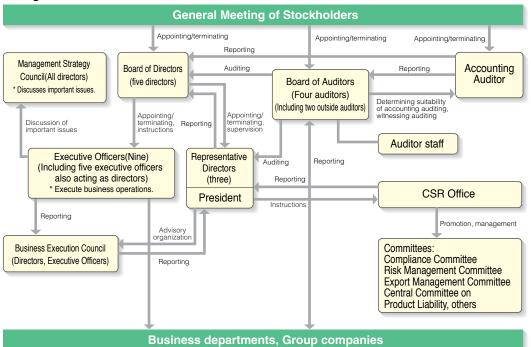
### Unitika's Basic Policy for Internal Control (Item Headings)

- 1. Organization to ensure that the execution of job duties by directors and employees complies with all applicable legislation and the Articles of Incorporation
- 2. Items pertaining to saving/managing information on directors' execution of job duties
- 3. Regulations on loss hazard management; other organizational elements
- 4. Organization to ensure that execution of directors' job duties is performed efficiently
- 5. Organization to ensure suitability of operations done by corporate groups
- 6. Organization to secure the reliability of financial reports.
- 7. When auditors ask for appointment of employees to act as assistants ltems pertaining to organization for those employees, and to their independence from directors
- 8. Organization used for directors and employees to report to auditors; organization for reporting to other auditors
- 9. Other organizational elements to ensure that auditing by auditors is performed effectively

# Organization

The diagram below shows the organization used for corporate governance, and to ensure fair corporate activities. The basic elements correspond to Unitika's Basic Policy for Internal Control (outlined above). This organization is used to strictly enforce internal control-compliance, information saving/management, risk hedging, increasing the execution efficiency of director job duties, and ensuring the suitability of operations.

# Organization





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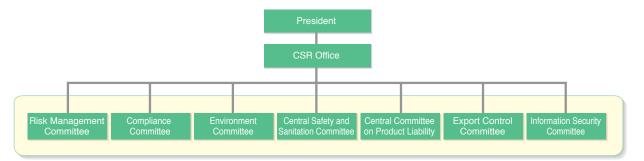
# **CSR Promotion System**

In order to promote environmental awareness and safety measures as well as compliance and risk management and other facets of CSR, in 2008 we established the CSR Office and a CSR Director to oversee CSR at the entity-level.

We have established a management system consisting of various committees and business divisions that support the CSR Office in promoting CSR initiatives.

Priority initiatives include those aimed at ensuring (1) environment, health, and safety (EHS) management, (2) the promotion of compliance, (3) information security management, and (4) product safety.

# **■** Organization of the CSR Promotion System



# **Environment, Health, and Safety (EHS) Management**

Unitika's Environment Committee meets regularly every year. It discusses and votes on major environmental issues such as basic plans for environmentally-aware management, and verification of their progress. Also, the bureau of the Environment Committee implements environmental audits of our production sites and reports on the findings of these at Environment Committee meetings.

The Central Safety and Sanitation Committee and the Environment Committee act as departments dedicated to safety and environmental measures, and have a higher level of authority in the Unitika hierarchy than the Environmental Safety Groups of Unitika production sites or affiliates. They form an organization that provides the leadership to implement effective environmental measures.

# **Information Security Management**

This section outlines our work on information management and security, which are becoming increasingly important issues as the growth of the Internet provides ever easier access to information.

#### ■ Information Security

To maintain the confidentiality of information assets and prevent unauthorized use, Unitika set up the Basic Policy on Information Security in 2005. This document contains our Information Security Declaration and sets forth our steadfast approach to implementing it, while setting up a management and operation organization driven by our Information Security Committee. The Basic Policy is designed to ensure protection and effective use of the information we handle in the course of our business activities.

In 2009, we rebuilt our system, formulating and implementing standards and implementation measures for information security and holding a meeting for personnel responsible for information management among other initiatives.

# Unitika Information Security Declaration (Preamble Omitted)

- 1. We will take steps to ensure the security of information as set forth by our Information Security Policy.
- 2. We will create an information security management organization, and implement it in a systematic manner.
- 3. We will educate and train our directors and all employees on our Information Security Policy, working to prevent information security accidents.
- 4. We will work on improving our information security measures on an ongoing basis.
- $5. \ We \ will \ comply \ with \ all \ personal \ information \ protection \ laws \ and \ all \ relevant \ statutes \ and \ standards.$

'Information Security Policy' refers to the documentation set forth and managed by the information Security Declaration, Basic Policy on Information Security, Standards for Information Security Measures and Information Security Implementation Procedures.



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# **Compliance Promotion**

In 1998, Unitika instituted the Unitika Action Charter.

In April 2008 we reviewed the Unitika Action Standards, which outline concrete standards of behavior. Moreover, as a company that contributes to people's lifestyles and the environment while carefully ensuring legal compliance, Unitika distributes a booklet of these standards to all Unitika Group directors and employees, so that they can put them into action.

We work to ensure that all employees are aware of compliance and that it is firmly established by making it a component of promotion training for all staff, including new employees.



# ■ Unitika Charter of Corporate Behavior

The Unitika Charter of corporate behavior is our basic policy on how best to fulfill our mission as a public-spirited corporation. It applies to all directors and employees of Unitika and Unitika Group companies.

The Unitika Charter of Corporate Behavior is a set of guidelines on how to act for the public good by complying with laws and international standards and guidelines.

- 1.UNITIKA, by the development and provision of socially beneficial goods and services in a safe and responsible manner, shall strive to earn the confidence of their consumers and customers.
- 2.UNITIKA shall promote fair, transparent, free competition and sound trade. They shall also ensure that their relationships and contacts with government agencies and political bodies are of a sound and proper nature.
- 3.UNITIKA shall engage in communication not only with shareholders but also with members of society at large, including active and fair disclosure of corporate information.
- 4.UNITIKA shall strive to respect diversity, individuality and differences of their employees, to promote safe and comfortable workplaces, and to ensure the mental and physical well-being of their employees.
- 5.UNITIKA shall respect the culture and customs of other nations and strive to manage their overseas activities in such a way as to promote and contribute to the development of local communities.6.UNITIKA shall reject all contacts with organizations involved in activities in violation of the law or accepted standards of responsible social
- 6.UNITIKA shall reject all contacts with organizations involved in activities in violation of the law or accepted standards of responsible social behavior.7.As a "good corporate citizen," UNITIKA shall respect fundamental human rights and actively engage in philanthropic activities, and other activities of

# ■ Whistleblower Contact Points

In 2006, Unitika put into effect a set of "whistleblower protection" (internal reporting) regulations, designed to allow employees to immediately report any malfeasance or illegal activities they might encounter. As part of this effort, we created two contact points for such reporting, one within the company and one outside the company. These are part of the strict measures we use to ensure thorough compliance within the company, driven mainly by the Compliance Committee.

Further, as part of our training in observing compliance using tools like our company intranet, we regularly dispatch information on these contact points to our employees.

# Unitika's Whistleblower Contact Points



#### ■ Consultation Service for Sexual Harassment and Abuse of Authority

In 1999, the Unitika Group established consultation services for complaints regarding sexual harassment and abuse of authority at all its Group companies with the aim of discovering and resolving such problems as soon as possible.

In the more than ten years since the consultation services were first established, employee awareness regarding sexual harassment and abuse of authority has improved, and the services have been effective to a certain extent.

With society becoming more aware of the abuse of authority in the workplace over the past several years, Unitika is reinforcing its efforts to deal with such issues by making the decision to treat complaints regarding abuse of authority officially beginning July, 2010, and establishing consultation services for workplace harassment.



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#### **Relationships with Clients**

Through our product liability and quality assurance efforts, Unitika strives constantly to improve product safety and quality of our products maintaining customer satisfaction as our first priority.

# **Ensuring Product Safety**

Unitika has established product safety management regulations designed to ensure that we always offer safe products to our customers. Unitika's product safety management regulations contain detailed provisions on areas such as basic policy, responsibility areas, implementation systems, and bylaws on the implementation and application of manual procedures. Unitika and Unitika Group companies work to ensure that product manufacturing and sales are carried out safely, in compliance with these regulations. The chart below details promotional system, headed by the Central Committee on Product Liability, for ensuring product safety.

# **Central Committee on Product Liability**

Members include the head of each business division, directors in charge of each business area, and directors in charge of management.

Work areas

Creating basic policy pertaining to product safety Creating yearly plans pertaining to product safety Supervising results of product safety reviews Keeping employees informed on product safety issues

#### **Product Liability Review Board**

Established in each business department, section and business unit. The relevant division head appoints the committee chairman and secretariat.

Department (office) heads in charge of production/technology, department (office) heads in charge of sales, and members appointed by the division head.

Main work areas

Reviews pertaining to safety issues in product designs/specifications, manufacturing and distribution
Reviews pertaining to product displays and warnings

Creating product safety standards and submitting revisions or deletions

# **Product Liability Manager**

Appointed by each division head in line with the type of business

Main work areas

Investigating and checking health and environmental effects of product handling and

Creating and reviewing product handling cautions for display on product containers, wrapping and tags
Creating and distributing product safety data sheets

# ■ Product Safety Record for Fiscal 2009

No product liability-related incidences occurred.

\*Information on the claims which may bring about an accident is shared by the Central Committee on Product Liability and such information is used to prevent from repeated claims.

# **Quality Assurance Activities**

In order to satisfy customer's demands on our products, the Unitika Group is pursuing quality management system certification. We are constantly improving our quality assurance activities based on ISO9001 standards for quality management systems.



UNITIKA Group Corporate Social Responsibility Report 2010

#### **Relationships with Shareholders & Investors**

Based on our "stakeholder-oriented" business perspective, Unitika endeavors to disclose accurate and timely information to the stockholders and investors at every opportunity. In January 2003, we established a new Investor Relations (IR) Department, which works, as IR/Public Relation Group, in tandem with the Public Relations Department to ensure that such activities function smoothly, and to create a meaningful dialog between the company and its stockholders and investors.

# **IR Activities**

#### **Ordinary General Stockholder Meetings**

Through explanations of our latest operating conditions and dialogs with shareholders, Unitika uses ordinary general stockholder meetings as opportunities to deepen understanding of our business conditions and policies.

#### **Announcements of Financial Statements & Explanatory Sessions**

Unitika conducts a variety of financial data disclosure activities, including twice-yearly second quarter and full financial year accounting statements for the press, both of which are followed a week or so later by explanatory session geared toward institutional investors and analysts.

# **Institutional Investor Visits**

Unitika representatives make visits to institutional investors and analysts in order to provide more specific information as needed.

#### **Publications**

- Financial Flashes (4 times annually, in May, August, November, and February)
- Stockholder Reports (2 times annually, at second quarter and full year closing)
- Corporate Guides

#### **Website Development**

The "To Our Shareholders & Investors..." section of the Unitika corporate website offers an array of public information of interest to stakeholders.

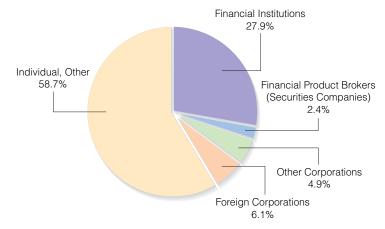
# Share Status (as of 31 March, 2010)

■ Total Number of Shares Issued: 475,969,000

■ Number of Shareholders: 66,764

■ Number of Unit Shareholders: 56,363

■ Distribution of Stocks





UNITIKA Group Corporate Social Responsibility Report 2010

#### **Giving Back to the Community**

Through beautification efforts, disaster prevention activities conducted with local communities and volunteers, and various informational services, Unitika works on with the people of the communities to protect the environment and build a more ecologically friendly society.

# **Efforts Toward Environmental Improvement**

Building on the success of the Kyoto Protocol, Kyoto Prefecture has created an environmental administrative organization that includes a system called Eco Kyoto 21. The system targets businesses that protect and develop Kyoto and the environment. It certifies and registers corporations that play a leading role in environmental preservation through awareness activities, and in promoting recycling in the local community. Unitika's Uji Plant has participated in the system from its inception, and in December 2004, was certified and registered under the system's Ecostyle category for production sites and organizations carrying out highly original environmental activities.



# **■** Participation in Local Beautification Activities

The Uji Plant is actively involved in volunteer activities to beautify the surrounding areas. It also participates in the local "Clean Uji" beautification and cleanup campaign, and conducts cleanup activities of the Uji Plant area three times a year. In fiscal 2009, a total of 1,033 people participated in cleanup activities, which were held on July 9, September 10, and March 3, 2010. Other Unitika production sites are



also giving back to the community by beautifying their surrounding environments.

At the Okazaki Plant, around 80 people conduct cleanup activities on the second Thursday of every month. On a Saturday in March 2010, about 150 people from the Okazaki Plant and surrounding community gathered for a volunteer activity to clean up the area around the facility.



Cleanup around the Okazaki Plant

# **■** Helping Keep the Planet Green

Responding to Japan's increasing focus on public-spirited volunteer projects, Unitika Labor Union established a volunteer foundation in 1992 and began a range of activities inside and outside the Company. In Japan, we have held support activities in facilities for the handicapped and conducted training meetings to expand the frontiers of volunteer activities. We have also worked to step up volunteer activities overseas, where we have sent volunteers to work camps for international exchanges, and have raised money for disaster relief.

In 2003, Unitika Labor Union celebrated its 30th year anniversary by starting a program called Midori no Plan ('Green Plan') designed to give back to the community and raise environmental consciousness. Midori no Plan volunteers created a wooded area they named Unitika no Mori ('Unitika Wood'). Three species of local trees (sawtooth oak, quercus serrata, Japanese cypress) were planted in a two-hectare area of mountain forest in Hidakagawa-cho (Wakayama Prefecture). Employees visit the area for cutting back the undergrowth and pruning several times per year. In September 2009, twenty-seven employees performed this task to enable better tree growth. This project has been recognized by Wakayama Prefecture as "an effort contributing to CO2 absorption through forestation," and is

projected to absorb about 800 tons of carbon dioxide from the atmosphere over the next 100 years.









UNITIKA Group Corporate Social Responsibility Report 2010

# **Disaster Prevention & Readiness Efforts**

Unitika has created an organization well-equipped to prevent production accidents and accidents damaging surrounding areas. In addition to these basic measures, we are also active in training activities to prepare for accidents and natural disasters. To make internal standards for managing safety at production facilities, Unitika has established a set of "pre-evaluation policies" on safety sanitation and environmental effects at new facilities. All new and remodeled facilities are subject to a strict inspection to be carried out two times, once during the designing stages and later again upon completion. Plants that use boilers and other high-pressure vessels are charged with a law to conduct yearly inspections. However voluntary self-management systems and specific conditions are fulfilled or acknowledged by presiding labor standards inspection office, and such inspections may be extended to once every two years instead of every year. Two Unitika facilities (Uji and Okazaki) have earned this acknowledgement.

The Tarui Plant, held firefighting drills and conducted firefighting equipment checks, fire reporting drills, fire prevention patrols, and other activities in conjunction with nationwide fire prevention campaigns held in the Spring and Fall. In Spring, the plant holds fire extinguisher training for new staff and transferred employees. On March 26, 2010, the plant held drills for putting out small fires using dry-chemical fire extinguishers and for extinguishing large fires using water from fire hydrants.

During the Spring fire prevention campaign, the Uji Plant held a variety of departmental firefighting drills including informing relevant parties in the event of a fire, evacuating buildings, and extinguishing small fires using fire extinguishers. The plant also



carried out a firefighting drill involving a simulated fire at the staff dormitory.

Firefighting drill for large fires (Tarui Plant)



Fire extinguisher drill (Tarui Plant)



Firefighting drill at staff dormitory (Uji Plant)



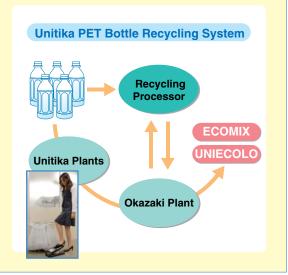
Firefighting drill at staff dormitory (Uji Plant)

# TOP ICS

#### ●TOPICS ●

# **PET Bottle Recycling**

Unitika manufactures and sells a variety of recycled products bearing the "ecomark," such as UniEcolo, recycled polyester fibers, and Ecomix, recycled polyester non-woven fabrics. As part of our efforts toward environmental protection, we have been developping such important products for which the demand is increasing. As a raw material for these, we organized a campaign for recovering used plastic PET bottles, which are washed and collected by employees from our various plants and their families. These are collected by our Okazaki plant and sent to a recycler to be chopped into usable plastic flakes. This recovering campaign began in Uji, Okazaki and Osaka, but now has spread to the Unitika Trading Headquarters and our Toyohashi, Sakoshi, Tokiwa, and Tarui where employee participation awareness is on the rise.





UNITIKA Group Corporate Social Responsibility Report 2010

#### **Concern for Our Employees**

Unitika's personnel system is designed to encourage employee self-actualization. We provide equal employment and work opportunities, and make every effort to create accommodating workplace environments.

# **Personnel System**

# ■ Personnel Appraisal System

Unitika's personnel appraisal system emphasizes employees' effort, and is designed to increase the organization's vitality. It is a results-driven system that awards greater benefits to employees who achieve greater success or tackle more difficult challenges. A biannual goal management system and annual competency evaluation system are used along with our human resources development program. They impartially evaluate how well each employee is meeting their goals, and help them set new goals to develop their abilities. Supervisors meet with each employee to discuss their evaluation results, ensuring that everyone receives proper feedback, for better transparency and communication.

# ■ Self-Reporting System (Career Plan)

Once a year, at the time of the annual personnel appraisal employees submit a 'Career Plan Sheet' to self-report how much aptitude they feel they have for their position. The Career Plan Sheet covers five main areas: (1) the employee's thoughts on their current position, (2) their own medium- to long-term career plan, (3) what they want to achieve next in their career (such as whether they want to be reassigned), (4) their strengths and how they have been working on achieving their career plan, and (5) comments on their current job position (such as their concerns) and improvement suggestions in the workplace. These comments are used to clearly identify skill development goals and expectations regarding roles. Furthermore, we also confirm whether employees of a certain age would like to use a reemployment system.

Unitika is aware of the importance of job rotation in fostering outstanding human resources. Our practice of periodic job rotation (especially for young employees) helps employees improve their abilities by giving them the opportunity to work in several departments, and helps us spot candidates to fast-track.

# **Equal Opportunity**

# ■ Women Employees

Unitika's women employees are valued for their abilities and perspectives. We employ a large number of female employees and have no gender-biased employment or promotion policies. Over the past five yeas, 20.3% of Unitika employees have been women, including many in management positions.

# Support System for Work and Childcare

As of July 1, 2010

		Pregnancy	Childbirth	Until child is 18 months old or end of year in which child turns 12 months old (whichever is longest)	End of 3rd year of elementary school
Leave	Menstrual leave	Morning sickness leave	Maternity leave	Childcare leave	Leave for care of sick children (10 days/year)
Work time		Relaxed commuting  1. Working hours shortened by up to 1 hour/day  2. Commuting time slot adjusted by up to 1 hour 'Does not apply to employees on flextime system Hospital visits permitted within working hours			Reduced working hours for childcare  1. Working hours shortened by up to 2 hours/day until child reaches age of 3  2. Working hours shortened by up to 1 hour/day  3. Commuting time slot adjusted by up to 1 hour  "Does not apply to employees on flextime system  4. Restrictions on labor outside regular working hours
Other	Fle	extime system			Flextime system

# Achieving a Work/Life Balance

In the interest of achieving an ideal balance between work and home life, and also to address Japan's aging society issues, Unitika fosters a corporate environment that allows employees to take leave for both child-raising and elder care, and in fact, Unitika offers leave durations for these, and also for care for sick children, that are longer than those stipulated by law. Also, based on Japan's "Next-Generation Child-Raising Support Measures Promotion Law," the company is also involved in promoting male participation in child-care, with child-care leave available to both male and female employees.

	Employees taking childcare leave	Employees taking leave to care for elderly relatives
2004	27	1
2005	17	0
2006	27	3
2007	26	0
2008	18	4
2009	16	1

# **■** Reemployment System

Unitika has a senior employee system that enables employees to continue in the same job after reaching the age of 60. We welcome employees who want to continue working.



UNITIKA Group Corporate Social Responsibility Report 2010

# **Human Resource Development**

Unitika believes that raising the ability of each employee in the organization is crucial for achieving high business goals. Human resource development is therefore an important focus for us. We approach it through two areas-our personnel system that sets forth employee work conditions and appraisal methods, and systems to encourage ability growth, such as ability development and training systems. To implement our approach, we have our own training facility called the Unitika Training Center. It is used for several different types of training taken by a large number of employees. To help employee self-improvement efforts, Unitika offers a job qualification assistance system, correspondence courses, and full-time study courses at universities in Japan. Many of our highly-motivated employees are eager to take advantage of these benefits.

#### Training System (Program) and Number of Students (FY 2009)

- Training for individual levels (544 students)
  - Training for promoted employees (216 students)
  - 2. Young employee education (328 students) New employee training, basic course, manufacturing department leader development course
- Specialized education (122 students)
  - Competency improvement training
     Legal training
  - On-the-job development education Supervisor training, business leader training
  - Quality control training
     Experiment planning training
     Basics of quality control



# **Employee Mental Health**

Unitika actively pursues measures to ensure the mental well-being of employees based on the Guidelines on the Maintenance and Enhancement of Employee Mental Health issued by the Ministry of Health, Labour and Welfare. All Unitika employees undergo mental health training when they are promoted to a management position. We encourage managers to be aware of their managerial role and to take care of their own mental health as well as the mental health of employees in their charge. Beginning 2010, Unitika introduced return-to-work support guidelines for employees who have taken extended leave due to mental illness.

We manage and promote employee health by supporting all employees at every stage from preventing illness to facilitating their return to work.

# **Human Rights**

# ■ Raising Human Rights Awareness

The entire Unitika Group is an active advocate of human rights. Unitika's Standards for Behavior are distributed among employees with the goal of elucidating the company's policies on human rights. The company also has an organization for the promotion of human rights and holds an annual human rights education seminar.

To comply with Japan's revised equal opportunity law, we are also working on preventing sexual harassment, and have set up sexual harassment consultation offices at each production site to raise awareness and recognition of the problem among all employees.

Organogram of Human Rights Education Committee

Director in charge of all employee human rights issues

Human Rights Education Advisory Committee

Companywide Human Rights Education Committee

Workplace Human Rights Education Committees

### Forced Labor

The Unitika Group and the Group's domestic and overseas subsidiaries and affiliates do not conduct forced labor or child labor in violation of the International Covenant on Civil and Political Rights, the Convention on the Rights of the Child, or other international treaties.

#### **■** Fair Recruitment Practices

Unitika has created the Unitika Employment Interview Manual based on the spirit of the employment selection guidelines issued by The Ministry of Health, Labour, and Welfare. We promote fair recruitment practices by distributing the manual at meetings and training seminars for interviewers and those involved in the selection process, and ensuring that all concerned are familiar with its contents.

18

Human Resource Development / Employee Mental Health / Human Rights



UNITIKA Group Corporate Social Responsibility Report 2010

# **Safety & Health Activities**

While the Unitika Group's medium-term safety and health plan implemented in 2008 (the 14th program running from 2008-10) sets a target of zero workplace accidents, seven such accidents occurred in fiscal 2009, an increase on fiscal 2008. The rate of lost work time also worsened to 1.17 during fiscal 2009. However, some successes were also achieved as a result of the safety and health activities promoted by our medium-term safety and health plan, with the Environmental Business Division successfully reaching 10 million hours of accident-free operation.

The increase in workplace accidents can be attributed to a variety of causes including aging equipment and facilities, increased dangers in factories, group companies, and workplaces due to generational turnover and other factors. In light of this situation, the Unitika Group is focusing on educational activities, for example by conducting safety diagnoses at plants and group companies. Moreover, the Group also conducts risk assessments to clarify latent dangers in equipment and facilities and implement measures to reduce workplace accidents.



# **Asbestos Removal**

In response to the increasing public attention being given to health problems associated with asbestos, in 2005, the Unitika Group established the Asbestos Action Committee, a groupwide body that promotes asbestos-related measures. Exposed beams and posts containing friable asbestos have already been removed, sealed off, or enclosed as needed. Moreover, friable and non-friable asbestos that has been sealed off or enclosed is removed using appropriate methods in conjunction with regular repair work.

To check employee health, we have offered health exams to any current or former employees who handled asbestos in the past and want to check for asbestos-related health problems. As of March 2010, there were six certified industrial accident victims (of whom five have died) and three victims certified under the Law Concerning the Relief of Health Damage Due to Asbestos (of whom three have died). No health problems have been reported from residents of areas surrounding production sites or Group companies.

Number of certified industrial accident victims: 6 (5)\*
Number of victims certified under the Law Concerning
the Relief of Health Damage Due to Asbestos: 3 (3)\*
\*Number in parentheses is number of deaths.



UNITIKA Group Corporate Social Responsibility Report 2010

# **Basic Environmental Policy**

Unitika named 1993 an Environmental first year, when we enacted the Unitika Global Environment Charter, consisting of our pledge, basic philosophy and action guidelines. Since then, we have complied with this Charter to ensure that our corporate management methods are environmentally aware, working on a range of environmental activities.

#### ■ Unitika Global Environment Charter

The growth and development of mankind is rapidly altering our planet's air, water and soil, threatening both the global biosphere and our own future, since both must depend on a finite ecosystem. As a corporation with more than a century of business activities contributing to the public good, we are highly aware of the demanding conditions now facing the global environment. The Charter is the declaration of our intention to focus more attention on protecting and helping the environment, making appropriate environmental action the core of our business activities.

# **■** Basic Philosophy

Better living through technology, driven by corporate activities that help humans and nature coexist.

# **Action Guidelines**

1	Continual awareness of the global environment	The Unitika Group always considers the effects of our corporate activities on the global environment, following a rigorous set of management procedures during product manufacture to prevent harm to it.
2	Contributing through technology development	We aggressively research and develop technologies to protect and help the global environment.
3	Using resources and energy efficiently	We promote efficient use of resources and energy, and recycle limited resources.
4	Carrying out PR and educational activities	We organize a large number of PR activities that provide information on protecting and helping the global environment, and promote a wide range of educational events.
5	Drawing on the complete range of Unitika Group competencies	Following the mandates of the Charter, we draw on our complete range of competencies to protect and help the global environment.



**OTOPICS** 

1st Unitika Squid Fishing Festival

# Participants clean up port

The 1st Unitika Squid Fishing Festival was held on Sunday, October 18, 2009, in Arita, a fishing port in Kushimoto, Wakayama Prefecture. The festival featured a lure fishing competition and was well attended by local anglers who competed for the best catch. After the competition, all the participants joined together to clean up the port to help maintain the local environment for all anglers.

\*More details regarding the event are available from the website below: Unitika Fishing Land website http://www.unitika.co.jp/fishing/ (in Japanese only)





UNITIKA Group Corporate Social Responsibility Report 2010

# **History of Environmental Preservation Activities**

Unitika's work on environmental management has continued uninterrupted for over 30 years, and will continue into the future.

Pollution first became a major issue in Japan in 1973. That year, Unitika created the Environmental Preservation Regulations, making a clear distinction between environmental measures and outward-directed production activities, to enable compliance with regulatory and standards values.

In 1991, we created a new companywide organization called the Environmental Preservation Committee, followed in 1993 by the Unitika Global Environment Charter. That year we began yearly environmental auditing, establishing the basic direction for our environmentally-aware management style that has continued to this day. In 1998, we created the Unitika Charter of Corporate Behavior, a document that sets forth the basic action policy needed to fulfill our Unitika Group mission as a public-spirited corporation. Its first article sets forth our responsibility for environmental and safety awareness.

The Unitika Action Standards created and implemented in April 2001 expanded on the Unitika Action Charter by setting forth specific action standards for Unitika organizations and employees to comply with in the performance of their routine business activities. The Standard of Corporate Behavior represent a clear step toward corporate activities grounded in a mindset of corporate social responsibility (CSR). They cover areas such as the environment, safety, compliance, and coexistence with the public good and stakeholders.

# ■ Unitika's Environmental Preservation Activity History

September 1973	Created and implemented Environmental Preservation Regulations.
October 1991	Revised Environmental Preservation Regulations, established Environmental Preservation Committee.
April 1993	Created and implemented Global Environmental Charter.
May 1993	Environmental Preservation Regulations were reborn as Environmental Regulations. Established Environmental Committee, organization which meets annually.
May 1994	Started environmental audits (once per year). (Voluntary audits by each production site and internal audits by headquarters staff.)
July 1996	Created targets for first Medium-Term Environmental Plan (FY 1997 to 1999).
September 1996	Started publishing Kankyo, our in-house newsletter on environmental issues.
October 1997	Started activities aimed at becoming ISO 14001-certified at our major production sites.
January 1998	Created and implemented Unitika Action Charter.
January 1999	Unitika Chemical was awarded ISO 14001 certification (first in Group).
October 2000	Created targets for second Medium-Term Environmental Plan (FY 2000 to 2002).
April 2001	Created Unitika Action Standards.
October 2002	Published Unitika Environmental Report.
October 2002	Created targets for third Medium-Term Environmental Plan (FY 2003 to 2005).
October 2005	Created targets for fourth Medium-Term Environmental Plan (FY 2006 to 2008).
October 2008	Created targets for fifth Medium-Term Environmental Plan (FY 2009 to 2011).

Unitika is working on becoming certified under ISO 14001-the international standard for environmentally-aware corporate activities. We have started activities to help our affiliates obtain ISO 14001, and have been conducting environmental audits of each company.



#### ●TOPICS ●

# **Evaluation of Financing** for Environmental Rating

Unitika has earned the overall evaluation "a company offering particularly advanced efforts toward environmental issues," and in fiscal 2007, we received financing from the Development Bank of Japan for financing for environmental rating. This financing was granted in recognition of our development of the polylactide-based material



Terramac, which has received widespread attention as a carbon-neutral material, and also for our leading roles in turning the private sector toward lower carbon emissions and achieving dramatic reductions in CO2 emissions from energy sources. As a result of a three-level environmental screening covering management overall, operations, and performance, Unitika received the highest rating.

# **■ ISO 14001-Certified Unitika Organizations**

April 1999	Ad'all Co., Ltd.						
November 1999	Unitika Sakoshi Plant						
January 2001	Unitika Textiles Ltd., Tokiwa Mill						
March 2001	Unitika Uji Plant						
March 2001	Unitika Uji Plastic Plant						
March 2001	Unitika Central R&D Laboratories						
March 2001	Unitika Glass Fiber Co., Ltd., Kyoto Plant						
March 2001	Unitika Environmental Technical Center Co., Ltd., Kinki Office						
October 2001	Unitika Okazaki Plant						
October 2001	Unitika Plant Engineering Co., Ltd., Chubu Office, 2nd Business Division						
October 2001	Nippon Ester Co., Ltd., Okazaki Plant						
October 2001	Unitika Environmental Technical Center Co., Ltd., Chubu Office						
December 2001	Unitika Tarui Plant						
December 2001	Unitika Plant Engineering Co., Ltd., Tarui Group						
December 2003	Unitika Glass Fiber Co., Ltd., Tarui Plant						
February 2004	Diabond Chemical Co., Ltd.						
September 2004	Terabo Co., Ltd.						
June 2008	Union Co., Ltd.						

UNITIKA Group Corporate Social Responsibility Report 2010

# **Medium-Term Environmental Plan**

The Unitika Group implements systematic improvements having established a Medium-Term Environmental Plan that sets the reduction of industrial waste and the efficient use of resources and energy as priority targets.

We are currently working to achieve the medium-term targets set forth in our fifth Medium-Term Environmental Plan, which now applies to all external group companies and is based on fiscal 2007 results.

# ■ Fifth Medium-Term Environmental Plan (FY 2009-FY 2010)

	Priority Issues	Targets	FY2009 Results	Fig. No.
1	Reduction of industrial waste	4% reduction compared to FY 2007 level	Achieved	(1)
2	Improvement of loss recycling rate in production process	2% increase compared to FY 2007 level	Not achieved	(2)
3	Improvement of energy source unit	Final year Year-on-year reduction of 1%	Not achieved due to reduced production	(3)
4	Reduction of energy consumption	10% reduction compared to FY 1990 in FY 2010	Achieved via switch from fuel oil to natural gas, introduction of cogeneration systems, & other initiatives.	(4)

Note\*: Scope of fifth Medium-Term Environmental Plan: Domestic plants, internal group companies, and external group companies



Fig. 1

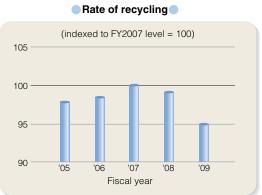
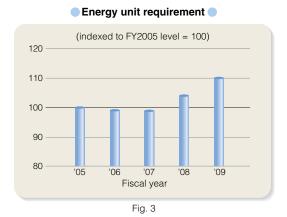
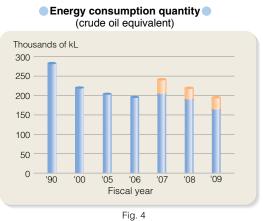


Fig. 2



Unitika Domestic Plants & Internal Group Companies



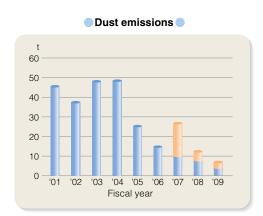
External Group Companies

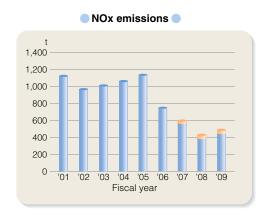


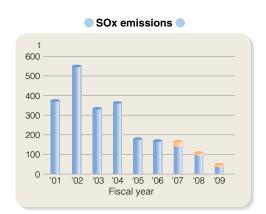
UNITIKA Group Corporate Social Responsibility Report 2010

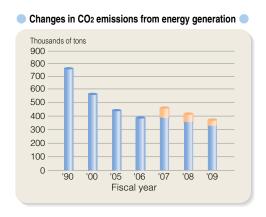
# **Reducing Air and Water Pollution**

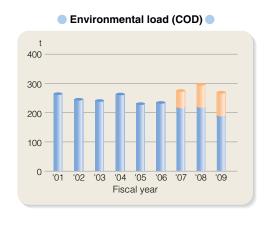
Domestic plants are pursuing measures such as switching from fuel oil to natural gas and the abolition of diesel power generation to reduce emissions of dust, nitrogen oxides (NOx), sulfur oxides (SOx), and carbon dioxide (CO<sub>2</sub>). Unitika also works to reduce water pollution through the appropriate management of wastewater treatment facilities.













Unitika Domestic Plants & Internal Group Companies
 External Group Companies
 Note: Nox = nitrogen oxides, SOx = sulfur oxides, COD = chemical oxygen demand



UNITIKA Group Corporate Social Responsibility Report 2010

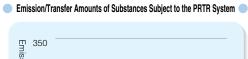
# **Handling of Chemical Substances**

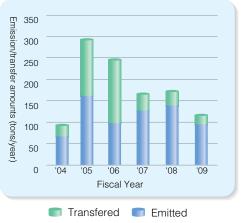
The Unitika Group works to monitor and reduce the use of chemical substances thought to be hazardous to human health as regulated by the Pollutant Release and Transfer Register (PRTR) system.

#### Emission and Transfer Amounts for PRTR System-Regulated Substances in Fiscal 2009

Substance	Atmosphere	Water	Total Amount of Emission	Transfer Amount
Acetaldehyde	5	1	6	-
Asbestos	-	-	-	-
Bisphenol A	-	0	0	5
ε-Caprolactam	14	0	14	-
Dichloropentafluoropropane	1	-	1	-
Dichloromethane(Methylene chloride)	41	0	41	8
Terephthalic acid	-	-	-	1
Toluene	18	-	18	1
Boron and its compounds	-	11	11	3
Poly(oxyethylene) alkyl ether	-	4	4	0
Other	1	0	1	3
Unitika Domestic Plants & Internal Group Companies Total	61	12	73	16
Unitika External Group Companies Total	19	4	23	5
			(	annual tons







# **Logistics**

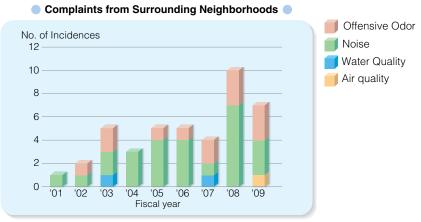
Unitika undertakes a variety of efforts to reduce the environmental burden associated with the delivery and emission of raw materials, products, waste, and other materials. These efforts include the implementation of modal shifts (i.e. switching transport from road to rail and/or shipping) and streamlining of delivery systems. In fiscal 2009, as a specified consigner (a Japanese legal designation applied to consigners who ship 30 million tons of freight or more per year,) we reported 74.2 million tons of freight and 24,200 tons of CO2 emissions to the government.

# **Environmental Complaints**

Based on Unitika's corporate vision of "being a company that contributes to people's lives and the environment, and that has a positive presence within society," we make utmost efforts to pursue our business and activities in ways that are considerate of the people living around us.

In each case, we looked to find both causes and solutions and communicated these to those in the surrounding communities while taking steps to ensure their non-recurrence. In all such situations we will do our utmost to improve so that we may contribute positively to the living environments of the people living around us.

Further, in fiscal 2009, for domestic plants, internal group companies, and external group companies, there were no incidences of accident or pollution that might have led to environmental problems, nor were there any violations of environmental laws and regulations.



Applicable scope: Domestic plants and external group companies



UNITIKA Group Corporate Social Responsibility Report 2010

# **Overview of Environmental Impact**

# **■** Environmental Impact From Business Activities (FY 2009 Figures)

The diagram below shows the Unitika Group's materials flow for FY 2009.

# Water

53,506,000 m<sup>3</sup>

River Water 46 976 000 m<sup>3</sup> Ground Water 4,149,000 m<sup>3</sup> Drinking Water 19,000 m<sup>3</sup> Industrial Water 68,000 m<sup>3</sup>

# **Energy**

225,000 kL (crude oil equivalent)

Raw materials

Unitika Group's business activities

Internal recycling

Material recycling: 12,195 tons Thermal recycling: 0 tons

# **Atmospheric emissions**

#### **Waste water**

Waste water quantity: 53,389,000 m<sup>3</sup> COD emission quantity: 268 tons

Waste products
Final external disposal quantity: 7,553 tons

#### Chemicals\*

Emission quantity: 93 tons Transfer quantity: 22 tons

All products
Production quantity: 245,000 tons

**External recycling** 

\*Substances requiring registration under PRTR System

UNITIKA Group Corporate Social Responsibility Report 2010

# **Environmental Accounting**

The Unitika Group implements environmental accounting as part of our environment-conscious business activities. In conducting our environmental accounting, we follow the 2005 edition of the environmental accounting guidelines published by the Japanese Ministry of the Environment in February 2005. The Unitika Group will continue to release clear and accurate environmental accounting data.

# ■ Purpose of Environmental Accounting

- To make environmental preservation more efficient by quantitatively identifying the amounts of investments and expenses for environmental preservation, and to make decision-making processes in a more reasonable way.
- To disclose environmental accounting information to our stakeholders and to fulfill our responsibility to keep them informed.

# ■ Method of Tallying Environmental Accounting Data

Data provided by: Unitika Domestic production sites & Internal Group Companies and Union Co., Ltd.

Applicable period: April 1, 2009 to March 31, 2010

Calculation method: Investment amounts include the environmental investment on items for which the environment is not the main objective. Expense amounts include labor costs, general expenses and depreciation.

Unitika's fiscal 2009 environmental investment was 199 million yen. Most of these funds were used on items related to energy savings and global warming prevention.

Environmental expenses were 1,488 million yen, mainly for maintenance and management of equipment to prevent pollution, waste processing (including recycling expenses), and product R&D to reduce environmental impact.

# **■** Environmental Preservation Costs

(Millions of yen)

	Category	Capital investment	Cost	Remarks
	Pollution prevention costs	34	651	Pollution (water, air and noise pollution) prevention measures
Business area costs	Environmental preservation costs	104	27	Energy saving, global warming prevention
	Resource recycling costs	61	377	Waste disposal, recycling
Upstream/downs	stream costs	_	43	Packaging material recycling
Management ac	tivity costs	_	73	Environmental management system maintenance environmental education, impact monitoring
R&D costs		_	260	Developing environmentally-friendly products
CSR costs	osts —		38	Forestation improvements, beautification campaigns
Environmental d	amage costs	_	19	Quantity-based tax on environmental impact of SOx emissions
Total		199	1,488	

# **■** Economic Effects

The table lists items with a clear basis for calculation that have high substantive benefits for environmental preservation. Note that inferred benefits have not been calculated.

(Millions of yen)

Item	Amount
Reduction in energy expenses	105
Reduction of costs associated with energy-efficient power sources and industrial waste reduction	7
Income from sale of recycled resources	119



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# **Technology and Products for Environmental Safety**

Unitika offers various products and technologies using a basic approach that aims to create sustainability through resource recycling.

# **Water Treatment Facilities**

- Water supply and sewage treatment facilities
- Advanced water supply and sewage treatment facilities
   Sludge reduction equipment
- Rural waste water treatment facilities.
- Landfill leakage treatment facilities
- Industrial waste water treatment equipme
- Water supply membrane filtration equipment
- Phosphorus removal and granulation equipment
- Waste water treatment facilities in incinerators
- Domestic waste water treatment equipment

# Improved Combined Sewerage **Treatment System**

Since large volumes of combined sewage flows into sewage treatment sites in a short time when it rains, the sites can't treat it fast enough, and untreated sewage is released into rivers or other waterways. To solve this problem, Unitika has developed an improved combined sewerage treatment system driven by our Marimo high-speed filtration system,



enabling rapid and stable treatment over short amounts of time. It efficiently performs variable high-speed filtration on top/bottom counter-currents, providing high treatment capacity in rain or shine. It removes pollutants at a filtration rate of up to 2,000 m/day in rain, and at a standard rate of 1.000 m/day in clear weather. It is a high-performance system offering stable treatment capacity at a low cost.

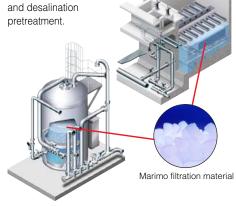
# ■ Phosnix<sup>®</sup> Phosphorus removal and granulation equipment

A system that recovers phosphorus in waste water as granules of magnesium ammonium phosphate (MAP), a substance that can be effectively used as a fertilizer



# **High-Speed Filtration System**

Marimo is a high-speed filtration system developed by Unitika that offers high performance and uses a special fiber as the filtration material. Marimo's high-speed function provides a filtration rate three to five times faster than conventional sand filtration systems. Offering a significantly higher level of treatment efficiency, it enables easy cleaning and draws on Unitika's many years of expertise as a fiber manufacturer. Marimo is used in a wide range of applications in tertiary waste water treatment, waste water reuse, industrial water filtration.



# **Air Pollution**

- Deodorizing equipment
- Soil surveys/analysis
- Pollution cleanup measures
- Dust collection equipment
- Soil pollution cleanup measures
- Pharmaceutical products, resins, filtration materials

# ■ Environmental Surveys, Measurement and Analysis Unitika Environmental Technical Center Co., Ltd.

Unitika Environmental Technical Center (UETC) uses the latest equipment and technology to carry out environmental surveys, measurement and analysis, along with various investigations needed by several industries. UETC is certified by Japan's Ministry of the Environment as a qualified contractor for dioxin analysis, and has gained a reputation for solid reliability. To enable more accurate analysis, UETC can analyze trace amounts of dioxins. It is highly experienced in soil surveys (a recent area of concern in Japan), and has measures to combat soil and groundwater pollution permanently. UETC also helps protect living environments through activities such as sick building surveys; air quality, weather, noise and vibration measurements; technical support for water treatment; exhaust gas, odor and work environment measurements; and analysis of river water, waste water, drinking water, asbestos, and insulation oil trace PCBs







tracting a sample with simple boring machine



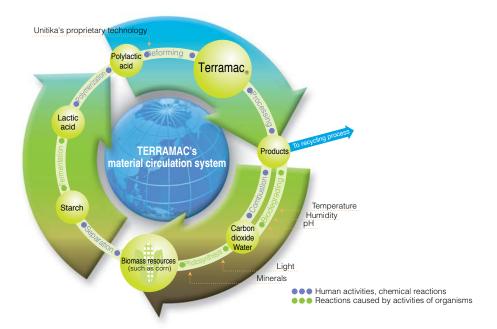
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# **Plant-Derived Biomass Material**

#### **■** Terramac<sup>®</sup>

Terramac is a biomass material made from a polymer derived from plants such as corn. Biomass materials are organic resources derived from sustainable biological sources except for fossil resources. Terramac ultimately degrades into carbon dioxide and water, which are absorbed into plants such as corn for their growth. Then, the corn can be turned Terramac again. So Terramac is part of the world's natural 'recycling system'. Conventional plastic products are made from oil, a limited and non-renewable raw material that will run out in the not-so-distant future if we continue using it. As a non-oil-based plastic product, Terramac is hence the focus of much attention. It has a wide range of applications in clothing, plateware, cups, wrapping films, cosmetic bottles, teabags, planters, trash bags, electronic device components and all areas of consumer demand. Unitika has developed the world's first heat-resistant foam containers and food containers made of polylactic acid, the base ingredient of Terramac. These products are attracting a lot of attention for their ability to hold hot water and their microwave-safe design. Terramac is used in applications such as mobile phone casings, which require demanding durability and heat resistance specifications, and digital MFP parts, which are required to be fire-resistant. Recently, we have used alloy technology to develop a new heat-resistant grade of resin for injection molding that features improved molding performance and shock resistance than conventional resins. This resin is used as an exterior covering for health meters and other applications. Combining the natural advantages of plant material with human technology, Terramac is an attempts to be the ideal material supported by both the Earth and human beings.





# Terramac is extremely safe for human health and the environment

Biodegradability:	JIS K6953 (ISO 14855) Passes the test of aerobic and extreme biodegradability and destructibility under controlled compost conditions.	
Labeling, certification standard:	Conforms to GreenPla® Identification and Labeling System/certification standard set by Japan Bio Plastics Association (JBPA). (Has been placed on Positive List, and been certified with the GreenPla® Mark.) Conforms to certification standards set by JBPA BiomassPla Identification System. Conforms to certification standards set by Japan Organics Recycling Association's (JORA) biomass mark business.	
Food sanitation:	Conforms to standards and criteria set forth in Ministry of Health, Labour and Welfare Notice No. 370 (Food Sanitation Law). Certified under US FDA/FCN (Food Contact Notification) No. 178. Included in Japan Hygienic Olefin And Styrene Plastics Association's (JHOSPA) positive list.	Sc
Bacterial resistance:	Polylactic acid is reported to have antibacterial activity. (Bokin bobai, Vol. 29, No. 3, pp. 153 to 159, 2001)	
Low combustion heat:	Low combustion heat of approximately 19 kJ/g is one-half to one-third the value of oil-based plastic, so can't harm incinerators. Does not generate toxic gases (dioxins, hydrogen chloride, NOx or SOx) when incinerated.	



Expanded method resin foams



**wingeo** 

Terramac products with the Ingeo™ are in compliance with the NatureWorks Brand Policy, and uses NatureWorks® biopolymers.NatureWorks, Ingeo, and the Ingeo logo are registered trademarks of NatureWorks LLC in the United States and other countries.

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# **Anticorrosive Sheeting**

# **■** Segurova<sup>®</sup>

Japan's River Law was partially revised in June 1997, and in line with the new law, Unitika developed Segurova, an anticorrosive sheeting material designed with the concern to natural environments and landscapes. Manufactured using a 3-D weaving technology to ensure that gaps and thicknesses are kept constant, Segurova resists water currents, and provides high corrosion resistance. Designed for weather resistance and endurance, it is mainly comprised of black clope-dyed polyester monofilament. To give some components partial dimensional stability, they use binder fibers with a core and pod structure. The sheet top and bottom layers have a honeycomb structure for easy filling with earth or sand. Segurova can be used in embankment protection works to reinforce the corrosion resistance of herbaceous plants such as lawns or seedlings. It stops corrosion by water currents at embankment surfaces and river banks, realizing a

new anticorrosion sheeting-based construction method.

Segurova has already become the first product in the industry to be awarded the Public Works Research Center's

Anticorrosion Sheet Performance Evaluation Certification (certification No. 0001).



# **Plant-Derived Biomass Material**

# ■ Castlon<sup>®</sup>

Castlon is a 100% plant-derived nylon fiber with low environmental impact. It is made from the inedible seeds of the castor oil plant.

It features a unique molecular structure unlike that of conventional nylon fiber that gives it excellent wear, bend, and fatigue resistance, as well as resistance to solvents, dimensional stability, and flexibility at low temperatures. The characteristics of this lightweight, up-and-coming material make it perfect for use in bags and other non-clothing-related applications.





# **Glass Beads**

# ■ Unibeads for use in Road Marking®

Unibeads for road marking are microscopic transparent spherical glass beads. Utilizing the effects of recursive reflection lenses, they are used for a variety of road marking applications to help create safer roads by improving nighttime visibility.

They are a recycled product that makes use of glass cullet from waste construction materials.

Unibeads are a safe, environmentally-friendly product that does not leach harmful contaminants into the soil. They have received certification (No. 05 131 001) from the Japan Environment Association as a product that helps

reduce environmental impact.
As an environmentally-friendly green purchasing product

they are also registered as an Osaka Prefecture-approved recycled product recognized by the Governor of Osaka Prefecture (No. 20-126).







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Uniecolo

# **Recycled Polyester**

Fiber

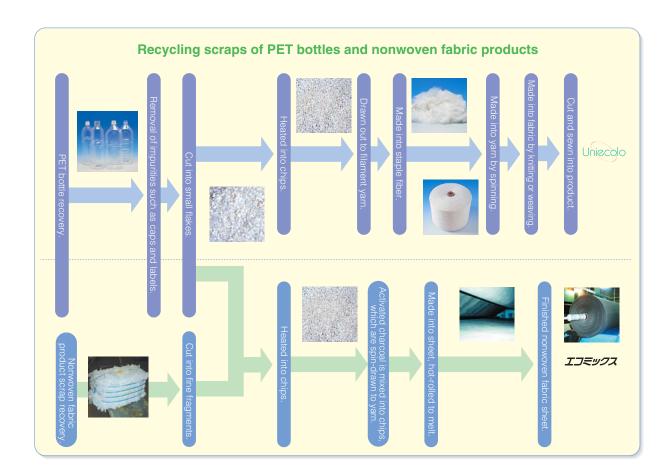
# **■** Uniecolo®

Demand for PET bottles has been growing year by year, and the cost of fossil fuel-based plastics is rising sharply. For these reasons, used bottles have become an important resource themselves. As part of our efforts to preserve the environment, Unitika has been active in PET bottle recycling. Uniecolo was developed through our outstanding spinning technology. Offering soft hand-feeling and good bulkiness, it is an environmentally-aware fiber with the same features as conventional polyester, and designed to enable reuse of limited resources.

# Nonwoven Sheeting

# **■** Ecomix®

Since recycling is an important part of our environmental preservation efforts, Unitika has developed, by its outstanding spunbond technology, a polyester filament nonwoven fabric called Ecomix, made from scraps of PET bottles or nonwoven fabric products. Ecomix has already obtained the Japan Environment Association's Eco Mark certification (No. 00105029). With outstanding water permeability and endurance, Ecomix has been approved for a wide range of public works applications, including protective mats for water barrier sheets in waste disposal sites, sheets for erosion and torrent control in banking reinforcement construction and harbors, suction-preventing sheets for riverbank protection, and plastic board drains. With its cost-effective wide sheets and highly elastic structure, Ecomix can easily handle warping and projections, and is gaining popularity as sheeting for today's needs.



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# **New Natural Fibers**

# ■ Sylph®

Good clothing materials need to be gentle, comfortable and versatile, while enabling attractive tailoring. Materials must meet all these requirements to make novel and comfortable clothing, and Unitika's groundbreaking new material Sylph generates just such new possibilities. More than ten years after the development of lyocell fiber (the raw stock fiber), Sylph was created by using a more evolved form of the raw stock fiber and the latest advanced fabrication technology. Sylph offers a larger variety of high added-value materials, and raises the standard of quality for lyocell products. And since it is also extremely

SYLPH

environmentally friendly, Sylph is setting the new standard for materials meeting 21st-century needs.



# **Organic Cotton Material**

# ■ Naturecot®

Naturecot is a material that employs organic cotton that meets Organic Exchange\*1 standards.

Organic cotton is defined as cotton grown in soil that has not had any agricultural chemicals applied to it for at least three years. Unitika decided to employ a third-party certification organization to guarantee that customers receive genuine organic cotton products. The company obtained Organic Exchange certification through Control Union\*2 and created a production system that ensures traceability.

- \*1 Organic Exchange: A US-based NPO that promotes organic cotton worldwide.
- \*2 Control Union: An organic certification organization based in Rotterdam, the Netherlands.





# **Ecorally**®

Ecorally reclaims and recycles fibers from used uniforms. It is a recycling system that turns resources into felt and other materials for reuse in new products such as carpets and vehicle interior materials. With recycling following reduction and reuse of waste in the order of priority environmental strategies outlined in Japan's Basic Act on Establishing a Sound Material-Cycle Society, Ecorally is garnering attention as a recycling system with low environmental

impact. In recent years, the role that uniforms play in terms of environmental impact, contributions to local communities, and other factors is gaining importance. As a tool for protecting the environment that connects companies with society and as a tool for enhancing social trust, Ecorally supports the realization of a sustainable and environmentally friendly society.





# **Production Site Information**

Production Site		Air		Water							Location	
	SOx	NOx	Dust	BOD	COD	Suspended matter	Oil	Nitr	rogen	Phos	phorus	Main products
Unit	Nm <sup>3</sup> /hour		g/Nm³				mg/l		kg/day	mg/l	kg/day	Main products
Uji Plant	29.1	199	0.025	-	1131	30	16	_	722	_	98	5 Uji-Tonouchi, Uji-shi, Kyoto, Japan 611-0021
Site area: 311,781 m <sub>2</sub> ISO 14001 Certification No. JCQA-E-0058 JCQA-E-0249	21.6	69.4	0.015	-	353	5.5	0.55	-	116	-	7	Nylon resin, nylon fiber, engineering plastics, nylon/polyester film
Okazaki Plant	93.29	100	0.05	25	718.7	20	10	15	385	2	51	4-1 Hinakita-machi, Okazaki-shi, Aichi, Japan 444-8511
Site area: 313,865 m <sub>2</sub> ISO 14001 Certification No. JCQA-E-0292	0.13	74	0	2.8	65.7	4	0	1.4	23.7	0.34	5.1	Polyester resin, polyester, fiber, spunbond (filament nonwoven fabric), medical equipment, environmental business
Toyohashi Plant	0.49	180	0.3	-	11.9	70	5	120	-	16	-	101 Matsunami, Akebono-cho, Toyohashi-shi, Aichi, Japan 441-8527
Site area: 270,804 m <sub>2</sub>	0.022	82	0.004	-	6.3	1	<1	12	-	0.42	-	Nonwoven fabrics (sheeting for civil works and roofing applications), biobusiness (cauliflower mushroom: Sparassis crispa)
Sakoshi Plant	0.0	89.3	0.12	_	348	3.9	10	15	_	2	_	846 Takano, Ako-shi, Hyogo, Japan 678-0171
Site area: 191,236 m <sub>2</sub> ISO 14001 Certification No. JCQA-E-0093	0.0	37	0.001	-	78.3	1.9	0.79	0.8	-	0.02	-	Vinylon fiber (for industrial materials such as cement, rubber reinforcements, tatami thread and papermaking binders)
Tarui Plant	11.5	180	0.3	_	108.4	50	5	120	42.7	16	5.6	2210 Tarui-cho, Fuwa-gun, Gifu, Japan 503-2121
Site area: 156,224 m <sub>2</sub> ISO 14001 Certification No. JCQA-E-0323	0.71	82.1	0.004	-	25.5	3.3	1	2.1	3	0.1	0.14	Cotton nonwoven fabrics, glass cloth
Tokiwa Mill	17.5	130	0.3	80	-	100	2.5	_	-	-	_	88 Nakahara, Souja-shi, Okayama, Japan 719-1195
Site area: 137,551 m <sub>2</sub> ISO 14001 Certification No. JCQA-E-0221	0.33	78	<0.001	<1	-	<1	<1	-	-	-	-	Cotton 100% yarn, Blended yarn with synthetic & cotton, Synthetic woven fabrics blended with cotton
Union Co., Ltd.	-	180	0.15	300	-	300	2	150	150	20	20	10-1 Ohmine-Minamimachi, Hirakata-shi, Osaka, Japan 573-0145
Site area: 6,886 m <sub>2</sub> ISO 14001 Certification No. JCQA-E-0835	-	18	<0.002	18	-	8	0.5	1.5	-	0.1	-	Glass beads

\* Values in table Measured FY2009 values

Note 1: The displayed regulation values are the most rigorous values mandated by law (Air Pollution Control Law or Water Pollution Control Law), regulations, prefectural guidance or conventions.

Note 2: Includes environmental impact from affiliates within site.

Note 3: SOX = sulfur oxides, NOX = nitrogen oxides, COD = chemical oxygen demand, BOD = biological oxygen demand Note 4: The displayed air pollution values are the measured values for the major facilities at each site (totals are values for entire site).

Note 5: The displayed water pollution values are the highest values measured at the drain outlets at each site (load amounts are values for entire site).

