DENKA
DENKI KAGAKU KOGYO KABUSHIKI KAISHA

CSR Report 2013

References

DENKI KAGAKU KOGYO KABUSHIKI KAISHA

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Reference

The DENKA Group Guidelines

Based on our corporate philosophy, “to become a company that creates new value from resources by fully employing our technological capabilities,” the DENKA Group established CSR action guidelines.

1. We will promote sustainable social and business development out of a conviction that corporate social responsibility is the essence of business.

2. While constantly ensuring quality to maintain customer trust, we will contribute to sound social progress by developing and supplying products and services that are safe and environment friendly.

3. We will operate fairly.

4. We will maintain a good level of communication with society and disclose appropriate information.

5. We will comply with laws and regulations and operate fairly according to social norms.

6. We will maintain safe, clean and comfortable workplaces and respect all basic human rights.

7. We will use, reuse and recycle resources to help protect the environment.

8. We will maintain security and disaster prevention measures, participate in environmental protection activities and communicate with society.

9. We will contribute to society as a good corporate citizen.

10. We will contribute to social development as a good member of the global community.

Established April 1, 2007

Fiscal 2012 Responsible Care Activities and Targets for Fiscal 2013

Fiscal 2012 Responsible Care (RC) Objectives and Achievements

(Assessment code: A = Reached target B = Partially missed target C = Missed target)

Key Area		Fiscal 2012 Goals	Fiscal 2012 Achievements	Evaluation	Relevant Page(s)	Major Challenges and Goals for Fiscal 2013 and Beyond
Environmental conservation	Prevent global warming and save energy	CO_2 emissions intensity (from energy sources): 1.00t/t Energy consumption intensity (fiscal 1990 base): 86% or lower	CO_2 emissions intensity (from energy sources): 1.25t/t Energy consumption intensity (fiscal 1990 base): 94% • CO_2 emissions intensity rose and was substantially over target because of the higher CO_2 emissions intensity of purchased electricity. Also, energy consumption intensity rose due to a decrease in production volume.	C	18 to 19	Reduce both CO_2 emissions intensity (from energy sources) and energy consumption intensity 1% or more compared with fiscal 2012 level • Promote total CO_2 reduction through such steps as improving production processes and increasing yield ratio
	Prevent air and water pollution	SOx: 153t NOx: 4,670t Soot and dust: 133t COD (BOD): 564t	SOx: 116t NOx: 4,044t Soot and dust: 93t COD (BOD): 864t • SOx emissions decreased due to the switchover of fuels at the Chiba Plant from heavy oil to byproduct gas with low sulfur content. • NOx emissions decreased due to the suspension of operations at CM-3 and the switchover of fuels at the Chiba Plant from heavy oil to byproduct gas. • Soot and dust emissions decreased thanks to the replacement of dust collector bag filters at the Omi Plant's calcium carbide production facilities and other actions. • COD (BOD) emissions were in excess of target but down approximately 30% compared with the fiscal 2012 level thanks to the improved wastewater treatment system used at the Omi Plant's POVAL production facilities.	B	18 to 20	SOx: 64t NOx: 4,266t Soot and dust: 123t COD (BOD): 1,293t • Reduce BOD emissions at the Omi Plant through such steps as the improvement of facility operation efficiency
	Reduce waste (zero emissions)	Total waste generated: 138,000t	132,000t • Waste reduction efforts at each plant have made progress.	A	18, 20	Reduce the generation of waste and the volume of waste sent to landfills
		In-house and external reuse: 126,600t	121,548t • Failed to achieve the target despite the switchover to a special cement additive product lineup and enhanced waste recycling at the Omi Plant	C	18, 20	Promote reuse of waste material
		In-house and external landfill: 374t	180t • Maintained zero emissions through waste reduction efforts at each plant	A	18, 20	Cut final landfill waste: 177t Maintain zero emissions
	Use resources efficiently	Raise the amount of waste and byproducts used in one ton of cement (recycled resource usage intensity)	Recycled resource usage intensity: 560kg/t • Met the target by promoting efforts centered on recycling industrial waste	A	18, 24 to 25	Raise the recycled resource usage intensity, thereby contributing to the development of a recycling-oriented society Strengthen the reuse of automobile shredder residue (ASR)
Product Safety	Compliance with chemical substance management policies	Continuously provide sufficient information on product safety, such as through SDSs*, while complying with international regulations on chemical substances including REACH**	• Revised the SDSs and labeling for products for EU and China to accommodate GHS*** • Made notifications under the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. with regard to chemical substances subject to monitoring while registering such substances in accordance with REACH regulations • Steadily implemented steps as necessary to comply with the TSCA† regulations of the United States, K-REACH†† and other regulations worldwide that conform with GHS	A	31 4 to 5 (Web)	Continue to supply SDSs and other product safety information while remaining compliant with such overseas regulations on chemicals as REACH
	Manage chemical substances and suppress emissions	Companywide emissions of PRTR substances: 88t	104t • Although we failed to meet the target, emissions of PRTR substances decreased 25% year on year due to the use of solvent-free adhesives for the Chiba Plant's tape products.	B	18, 20	Companywide emissions of PRTR substances: 95t Step up efforts at the Chiba Plant to reduce the emissions of PRTR substances
	Ensure safe transportation	Fulfill responsibilities as a bulk shipper	• Addressed problems identified through inspection tours as a part of the improvement project (countermeasures in work involving heights, stacking of containers, etc.) • Compiled examples of accidents in logistics operations into a booklet while implementing training of persons in charge • Provided external transporters with training sessions, including Yellow Card Training Programs, to enhance their ability to handle emergencies	A	21	Fulfill responsibilities as a bulk shipper
Occupational Safety and Health	Eliminate occupational accidents	Conduct risk assessments and identify and eliminate unsafe facilities, work practices and behaviors	All business sites continued to conduct risk assessments and hazard prediction activities to identify and address unsafe work practices. However, year-on-year safety records have deteriorated at the Group. Number of incidents of lost work time due to accidents In Group: 5; accident frequency of 0.92 Among subcontractors: 3; accident frequency of 0.54	C	12 to 13 6 (Web)	Attain zero accident rate for incidents resulting in lost work time by implementing the following policies: • Safety activities involving all employees • Facilitating worksite communication to create a lively and vibrant workplace • Thorough implementation of safety education • Raising the safety awareness of each employee • Implementing safety activities tailored to local needs
	Manage employee health	Maintain and improve health	Continuously implemented countermeasures against mental health problems and metabolic syndrome (education and development of follow-up structures).	A	12 to 13, 28	Undertake activities to maintain and improve health
Disaster prevention	Eliminate major accidents	Eliminate major accidents, especially explosions, fires and large-scale leaks of chemical substances while improving production control	• There were no major accidents. • The number of facility-related incidents impeding operations was 11, up from nine in the previous fiscal year. (Breakdown: four fires or the emission of smoke; three electricity-related problems; one water leakage; two equipment failures; and one environmental accident involving leakage of muddy water) • Based on an analysis of previous accidents, we implemented measures to prevent recurrences and stepped up preliminary safety assessments and change management.	B	12 to 13 6 (Web)	Eliminate major accidents, notably explosions, fires and large-scale leaks of chemical substances, and improve production control (in keeping with the characteristics of specific plants, target more stable operating conditions, enhance operational techniques and facilities)
Community relations	Maintain community trust	Continue to engage communities and build trust	• Addressed complaints about noise and odors through response desks at each business site, deploying countermeasures and responding in good faith to complaints • Engaged in community dialogue, hosted site tours and held children's chemistry classes • Included a third-party opinion in the *DENKA CSR Report*	A	32 to 33, 37	Facilitate communication with local communities to garner their trust

* Safety Data Sheet ** Registration, Evaluation, Authorisation and Restriction of Chemical Substances *** Globally Harmonized System of Classification and Labeling of Chemicals
† Toxic Substances Control Act †† REACH-related law adopted in the Republic of Korea

Information Security/System Administration/Online Information Management

DENKA Will Secure Information Security through Appropriate Control

Information Security

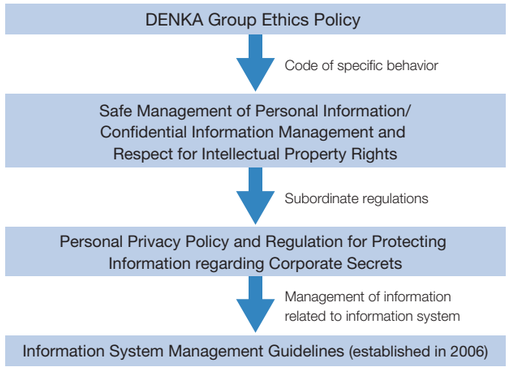
The DENKA Group Ethics Policy established in 2002 includes a code of specific behavior that encompasses guidelines under the headings the Safe Management of Personal Information/ Confidential Information Management and Respect for Intellectual Property Rights, both of which are strictly complied with. As subordinate regulations of these guidelines, DENKA established and developed the Personal Privacy Policy and the Regulation for Protecting Information regarding Corporate Secrets, which are thoroughly disseminated through lectures and in-house newsletters.

Furthermore, DENKA strictly manages and respectfully handles confidential information provided by third parties in accordance with the DENKA Group Ethics Policy.

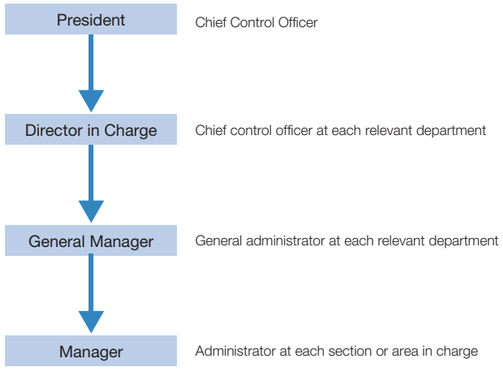
Management of Information Related to the Information System

In recent years, the volume of information digitally processed by the Group's information system has been rapidly expanding on the back of drastic advances in IT technologies. Accordingly, it is increasingly important to secure our information management system. DENKA created the Information System Management Guidelines in 2006 and the Information System Work Manual in 2008 based on the Regulation for Protecting Information regarding Corporate Secrets. In cooperation with managers and persons in charge at each relevant department, we are appropriately handling digitized information.

Structure of Information Management Rules



Information Management Structure



Lectures on Information Security

To disseminate in-house rules pertaining to information security, our information technology specialist course, covering the Information System Management Guidelines and basic rules, is provided annually at Headquarters as well as each branch and plant. With classes of about 10 employees, the course aims to ensure the adoption of proper information management methods through practical training as well as active discussion.

Younger employees participating in a lecture on information management

Protection of Electronic Data

To secure the reliability and efficiency of information systems, we are utilizing external specialized data centers to manage and operate our information system equipment. As a part of emergency preparations, in fiscal 2012 we established an information system operation structure that links two data centers (located in the east and west of Japan) capable of supplementing each other's operational capacity at the time of wide-area disasters, including earthquakes and tsunami, thereby securing the continuity of our business operations.

Online Information Management

DENKA utilizes the Tokyo Stock Exchange's timely disclosure network (TDnet) service to disclose corporate information subject to the timely disclosure rules. Although the Company presents the same information on its website, DENKA makes sure that such information is protected from unauthorized access or theft prior to the completion of timely disclosure. For example, the number of personnel handling the management of managing the website is strictly limited and they are appropriately educated. They initiate procedures for the uploading of said information only after confirming that the information has been successfully disclosed through the aforementioned service. Moreover, their workspaces are monitored and equipped with protection systems. We have also set up a procedure to handle emergencies, such as unintentional information disclosure and leakage.

Reference

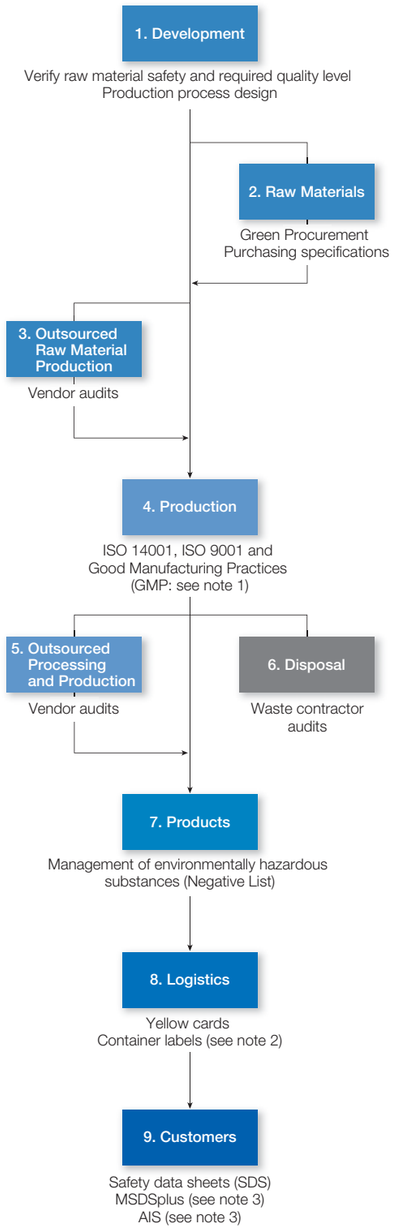
Product Safety Management System

Product Safety Management System

We thoroughly undertake management operations that fully consider safety, environmental protection and quality in all our processes, from raw materials procurement to research, production, logistics, consumption and disposal.

Product Safety Management

Product Safety Management Flowchart



We ensure product safety at each phase—from development and production to use by customers—while focusing on maintaining and improving quality.

1. Verify the Safety of Raw Materials and Required Quality Level and Engage in Production Process Design

We select and use raw materials for which safety can be verified while developing products that conform with customer and legal demands. We establish production processes that ensure consistent quality and thus trust in the products we develop.

2. Green Procurement /Purchasing Specifications

We purchase and use raw materials based on the Negative List, which takes into consideration Japanese and international environmental management regulations, as well as purchasing specifications that outline the required characteristics of purchased raw materials. Consequently, we are striving to manufacture superior products from quality raw materials and production processes.

3 & 5. Manufacturing Vendor Audits

We outsource some raw material production processes and the manufacture of semi-processed goods. We regularly audit manufacturing vendors based on our in-house standards for quality, logistics, environmental management and product safety.

4. Maintain/Improve the Environmental Protection and Quality

We are undertaking environmental and quality management operations; gradually expanding the scope of our efforts to include new products; and working to maintain and improve quality, environmental protection and safety.

6. Waste Contractor Audits

We commission waste contractors in line with the Waste Management and Public Cleansing Law, requiring them to issue manifests and confirm collection. We regularly evaluate the operations and financial positions of these vendors and visit their waste processing sites.

7. Management of Environmentally Hazardous Substances in Products

We established the Negative List, which lists substances that are considered to be harmful to people and the environment. We are taking steps to ensure product quality and safety while reducing environmental load by placing restrictions on usage during the raw material phase and by decreasing the residual volume of harmful substances in our products. The Central Research Institute (which is in charge of certifying measurements) analyzes the amount of residual substances harmful to the environment contained within raw materials and products. Analytical data verifying that the amount of such substances is below regulatory limits is shared with the production, sales, and analysis and product management departments.

8. Displaying Yellow Cards and Yellow Card Container Labels

We require drivers to carry yellow cards that explain post-accident procedures. We also label containers to ensure swift and proper remediation. We regularly inform drivers of our requirements and conduct emergency drills.

9. Safety Data Sheets (SDS)

We produce these sheets for all products to ensure proper handling according to physical and chemical hazards and health and environmental risks. The sheets inform customers and help educate employees. We have begun disseminating information on environmentally hazardous substances contained in our products to customers through the MSDSplus—which supplements information conveyed on SDS sheets—and Article Information Sheet systems.

Quality Symposia, SQC and Quality Engineering Education

The DENKA Group holds periodic quality symposia aimed at enhancing quality management techniques while implementing education programs on the statistical quality control (SQC) method and quality engineering across the board.

On February 14, 2013, the third quality symposium was held and attended by representatives of the Company's plants, research laboratories and affiliates. Under two themes, "the utilization of the SQC method" and "how to resolve quality-related problems," 10 presentations were given that shared best practices in the area of quality improvement.

We also reviewed in-house education programs on the SQC method and implemented revisions pursuant to the following policies.

- Tailor these programs to best serve diverse levels of employee understanding, offering introductory to advanced levels and thereby ensuring that the basics of the SQC method are firmly adopted
- Appoint persons to take charge of SQC promotion at each production site and nurture them as SQC trainers
- Determine the required level of comprehension by job rank and category while incorporating such requirements into in-house education policies for Companywide application
- Enrich the software used for statistical analysis

In addition, in fiscal 2013 we began to introduce quality engineering (Taguchi methods) to upgrade the level of our quality management techniques. The aim of quality engineering is to efficiently ensure high product quality that is not influenced by usage conditions or environmental factors. In fiscal 2012, prior to introducing the new approach, we solicited the advice of external specialists on how to adopt the concept of quality engineering and implemented a pilot product development project under selected R&D themes.

Collaborating in Chemical Industry Initiatives

● High Production Volume Program (HPV)

Through the HPV Program, we and other companies collaborate under the auspices of the International Council of Chemical Associations to evaluate the safety of around 1,000 substances that the Organisation for Economic Co-operation and Development has designated as priority substances.

● Japan Challenge Program

Under this program, manufacturers are working with the Ministry of Health, Labour and Welfare, the Ministry of Economy, Trade and Industry and the Ministry of the Environment to collect, assess and disclose safety information on around 700 chemical substances. We are participating in areas of the program that relate the substances that we use.

● Long-Range Research Initiative

The Japan Chemical Industry Association, the American Chemistry Council and the European Chemical Industry Council oversee this program. The program entails conducting long-term basic research to correctly determine if and/or in what manner chemical substances affect human health and the environment. Currently, these bodies are engaged in long-term basic studies of such issues as ecological (environmental) toxicity due to exposure to chemical substances, neural toxicity and cancer caused by exposure to toxic chemicals, and endocrine hypersensitivity due to exposure to chemical substances. As we did in fiscal 2010, we fully cooperated in the implementation of this program in the year under review.

Notes 1. Good Manufacturing Practices (GMP) refers to standards that Japan's Ministry of Health, Labour and Welfare established in its Ministerial Ordinance on Standards for Manufacturing Control and Quality Control for Drugs and Quasi-drugs.

2. The Japan Chemical Industry Association created a labeling format to augment the Yellow Card system. The labels present emergency guideline numbers and United Nations identification numbers for different chemicals transported in relatively small amounts on the same vehicle. The labels aid in the proper handling of these chemicals in emergencies.

3. The Joint Article Management Promotion-consortium (JAMP*)'s Material Safety Data System plus (MSDSplus) and Article Information Sheet systems provide standardized formats for presenting information on substances subject to management. MSDSplus is mainly for substances and agents that are upstream in the supply chain. Article manufacturers produce Article Information Sheets based on that information. JAMP aims to spread its systems throughout Japan and Southeast Asia.

* JAMP is a cross-industry association established in Japan in 2006 to encourage companies to properly manage information on substances and compounds as well as on chemical substances in parts, plastics and other articles. JAMP also establishes mechanisms to disclose and present information on supply-chain products.

Reference

Occupational Safety and Health Management System

We endeavor to maintain safe and comfortable workplaces.

Occupational Safety and Health Management System

DENKA conducts risk assessments to monitor the degree of risk at each plant.

Based on assessment results, we comprehensively manage risks and implement improvements. The status of certification acquisition from external institutions is as follows.

Although the Shibukawa Plant has yet to acquire certification for its occupational safety and health management system, the plant is implementing safety management and promotion activities equivalent to those prescribed by a certified system.

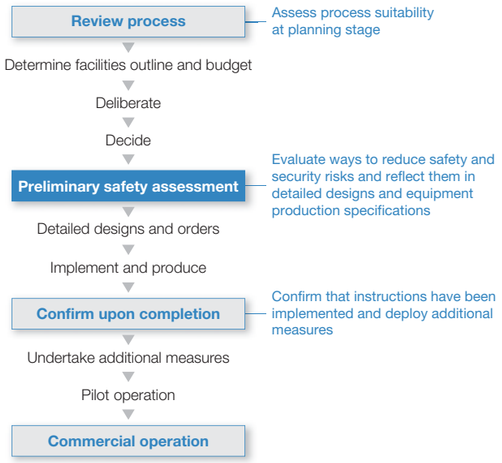
Plant Name	Certification System	Certification Number	Acquisition Date
Chiba Plant	OHSAS 18001	279788	February 6, 2007
Omi Plant	OSHMS	10-15-6	March 8, 2010
DSPL Seraya Plant	OHSAS 18001	SNG6011133	January 23, 2011

Change Management

This encompasses establishing rules to assess risks and implement measures where needed for changes in the 4Ms* during production. Preliminary safety assessments are important when building plants that use new processes. Change management comes into play when we upgrade or modify facilities. Facilities and operations departments conduct preliminary safety assessments and gather with in-house third parties to discuss risks relating to fires, explosions and worker safety.

In particular, we emphasize preventing key lapses in areas concerning disaster prevention and occupational health.

* The 4Ms: man, machines (facilities, equipment, tools), materials (raw materials and components) and methods (including work methods/operations, processing conditions and formulas)



Reference

ISO 14001 and 9001 Management Systems

We are pursuing ongoing improvement based on our quality and environmental management systems.

Status of ISO Certification Acquisition

We secured the following ISO certifications in fiscal 2012:

	ISO 14001 (Environment)		ISO 9001 (Quality)		
	Date Certified	Registration Number	Date Certified	Registration Number	Products Covered
Omi Plant	October 16, 1999	2661116-2A (BV)	August 19, 1994	2936857 (BV)	Chloroprene, acetaldehyde, POVAL, ASR, SAKNOHOL, special cement additives, cement, alumina fiber, monochloro acetic acid, sodium monochloroacetate, caustic soda, monosilane, dichlorosilane, hexachlorodisilane
Omuta Plant	October 28, 2000	2832519 (BV)	November 7, 1998	1897810 (BV)	Fused silica, special cement additives, nitride powder, ceramic substrates, steel additives, acetylene black, calcium aluminate cement, FIRELEN, boron, boron carbide powder, thermally conductive materials, heat sinks, phosphor
Chiba Plant	May 31, 1999	2229709 (BV)	March 22, 1995	2985010 (BV)	Polystyrene, acrylonitrile styrene resins, methyl methacrylate styrene resins, methacrylate-butadiene-styrene resins, methacrylate acrylonitrile butadiene styrene resins, acrylonitrile butadiene styrene resins, styrene-maleimide copolymers, styrene-butadiene copolymers, vinyl acetate, ethylene vinyl acetate copolymers, acrylic rubber, polystyrene sheet, acetic acid, styrene monomer, toluene, ethyl benzene, rain gutters, vinyl tape, corrugated pipes, duct hosing, wall ducts, polyvinyl chloride
Shibukawa Plant	May 21, 2001	2944628 (BV)	October 23, 1996	1957684 (BV)	Metal substrates, adhesives, emitters, thermally conductive spacers, thermally conductive adhesive sheets, electromagnetic shields, Elegrip Tape
Ofuna Plant	November 9, 2001	JQA-EM1895 (JQA)	October 25, 1996	JQA-1429 (JQA)	Packaging tape, plastic films, polyvinyl chloride fibers
Isesaki Plant	September 30, 2003	2770789 (BV)	February 28, 2008	3038095 (BV)	Stretch films, food packaging sheets, electronic packaging sheets, cover tapes, DX FILMs
Central Research Institute	July 5, 2004	2988036 (BV)	—	—	—
DSPL Merbau Plant	June 8, 2001	SNG0190016 (Lloyd's)	November 29, 2000	SNG0160194 (Lloyd's)	Acetylene black
DSPL Seraya Plant	May 28, 2003	SNG0190023 (Lloyd's)	September 27, 2001	SNG0160242 (Lloyd's)	Polystyrene, methyl methacrylate styrene resins, styrene-butadiene copolymers
DAPL Tuas Plant	March 2003	2003-0194 (PSB)	April 2000	99-2-0984 (PSB)	Manufacture of fused silica filler
Denka Advanced Materials (Suzhou) Co., Ltd.	May 20, 2008	310092-UK (BV)	September 19, 2007	273428 (BV)	Electronic packaging sheets, cover tapes
DENKA Polymer Co., Ltd.	—	—	September 14, 2001	C2010-01748 (PJR)	Plastic food packaging and plastic sheets
DENKA SEIKEN Co., Ltd.	June 23, 2000	2737475 (BV)	July 13, 2005	12 100 25631 TMS (TUV)	Clinical chemistry diagnostic reagents, immunological diagnostic reagents, bacteriological and virological diagnostic reagents, sterile cotton swabs
CRK Corporation	—	—	November 19, 2009	2862476 (BV)	Rubber compounds, rubber tape, rubber molding

DSPL: Denka Singapore Pte., Ltd.
DAPL: DENKA Advantech Pte., Ltd.

Note: ISO 9001 is not applicable to the Central Research Institute.

Employing Proprietary Technologies, We Offer Products and Solutions That Contribute to Environmental Load Reduction and Social Development.

Infrastructure & Inorganic Materials Division				
Category	Department	Product Name	Application	Details of Contribution Effects
CO_2 emissions reduction in manufacturing process	Special Cement Additives Dept.	CO_2-SUICOM	Concrete precast products	During production, CO_2-SUICOM supplemented with γ 2CaO/SiO_2 undergoes carbonization, absorbing CO_2 and thereby contributing to CO_2 reduction. Moreover, as γ 2CaO/SiO_2 uses slaked lime instead of limestone, even at the raw material stage no CO_2 is generated.
Provide weight-saving benefits for users	Special Cement Additives Dept.	SUQCEM	Concrete precast products	This concrete reinforced with ultrahigh-strength fiber is lighter and thinner than ordinary concrete, and can cut construction costs.
	Inorganic Products Dept.	DENKA ALCEN	Catalyst carrier for purifying automobile exhausts	This alumina fiber used in replacing steel automotive engine parts with aluminum parts helps to reduce automobile weight and thus improve fuel efficiency and reduce CO_2 emissions.
CO_2 emissions reduction at the use stage	Special Cement Additives Dept.	Σ1000, Σ2000	Concrete secondary products	Used as a high-strength additives to reduce the volume of CO_2-emissions intensive cement needed to make concrete
		Σ80N	High-strength cast-in-place concrete	Used as high-strength additive to reduce the volume of CO_2-emissions intensive cement needed to make concrete
		F-DAC	Concrete secondary products	Facilitating concrete's hardening and setting, F-DAC shortens pre-curing and steam curing time and thus reduces the CO_2 emissions from the resulting concrete products.
	Inorganic Products Dept.	Slaked lime	Water treatment, construction material and agricultural and industrial applications	Slaked lime absorbs CO_2 over the long term through carbonization, gradually turning into limestone.
		SULFEX, Synthetic FLUX COMPOUND	Steel desulfurizing agent	Used in place of calcined lime, the most common desulfurizing agent, these products reduce thermal loss during steel refining while helping to lower CO_2 emissions from transportation by reducing slag ejection.
	Agri-Products Dept.	Calcium cyanamide	Fertilizer	Studies have shown that calcium cyanamide fertilizers lower emissions of N_2O, which has a greenhouse effect 310 times greater than CO_2. Also, a study has shown that the use of this fertilizer in tea plantations countrywide would have a GHG reduction effect equivalent to planting 200 million cedar trees.
Improve customers' operational processes	Special Cement Additives Dept.	Slurry shot method (NATMIC US-32, US-50)	Shotcrete for tunnels	This method helps to reduce dust and concrete splash during the spraying process while improving the workplace environment and decreasing material losses.
		Clear shot method (NATMIC LSA, USS)	Shotcrete for tunnels	The low alkaline content of NATMIC LSA and USS results in an improved workplace environment with reduced dust and less concrete splash, qualities that, in turn, reduce the environmental burden and decrease material loss during the spraying process.
Reduce energy and resource consumption	Cement Dept.	Portland cement	Cement	Recycling industrial waste as cement raw material
	Special Cement Additives Dept.	Super Cement	Emergency repair of roads railways and airports	This ultraquick-hardening concrete gains practical strength over a short time period, helping to ensure roads open to traffic in a timely manner.
		F-DAC B-FORM	Concrete secondary products	Facilitating the hardening and setting of concrete, these products shorten pre-curing and steam curing time while lowering costs by reducing fuel use and improving production efficiency.
		DENKA TECHNO-CRETE SYSTEM (electrochemical repair work)	Repair and maintenance of concrete structures	When concrete is damaged by salt or neutralization, the TECHNOCONCRETE method can be used to repair it electrochemically, thereby extending the life of buildings and structures while reducing life cycle costs and waste generation.
		SUNTIGHT T-K, T-F	Repair and maintenance of sewage systems	The sulfuric acid generated inside sewage facilities deteriorates concrete. Therefore, the use of this acid-resistant mortar for repair and maintenance work can enhance the facility durability and cut life cycle costs.
		EIEN	Concrete precast products	Incorporating special cement additives (γ 2CaO/SiO_2), EIEN can densify the internal structure of concrete by reacting with carbonate ions, thereby improving concrete durability and thus reducing life cycle costs.
		SUQCEM	Concrete precast products	SUQCEM's extremely high durability due to its ultrahigh strength can reduce life cycle costs.
	Inorganic Products Dept.	DENKA ALCEN	Fire resistant materials	As a high-temperature thermal insulator, this product reduces heat loss and thus saves energy. Due to greater heat resistance than ceramic fibers, it eliminates the need for frequent repair and maintenance work.
Contribute to society (support post-disaster reconstruction)	Special Cement Additives Dept.	DENKA SOIL PACK SP20, SP2000	Soil liquefaction countermeasures	Soil stabilization materials that strengthen soft ground by causing dehydration. Simply by mixing these products with the soil, the user can improve soft ground.
		DENKA ES, ES-L	Soil liquefaction countermeasures	Boasting high durability, these cement-based quick-hardening materials were especially developed to accelerate the solidification and hardening of cement in terrestrial grouting work performed during construction.
		DENKA Colloidal Super	Soil liquefaction countermeasures	A super-fine powder cement additive boasting high strength and durability as well as excellent permeability
		DENKA S pack	Soil liquefaction countermeasures	Grout additive developed to be used as the primary injection material in the dual-tube double packer grouting method
		DENKA Silica Balls	Soil liquefaction countermeasures	An injection material in slurry form incorporating an ultra fine silica powder and boasting excellent permeability
		CG1000, CG2000	Soil liquefaction countermeasures	Cavity sealant material with plasticity
	Agri-Products Dept.	AZUMIN	Fertilizer	When mixed into desalinized soil, AZUMIN improves agricultural yields from farmland that has suffered salt damage due to tsunami flooding.

Concrete Products and Technologies That Help Save Resources and the Environment

CO_2-SUICOM (CO_2 absorption concrete)

CO_2-SUICOM is an environment-friendly concrete jointly developed by DENKA, Kajima Corporation and the Chugoku Electric Power Co., Inc. The usual concrete manufacturing process generates emissions amounting to between 200 and 400 kilograms of CO_2 per cubic meter of concrete. With CO_2-SUICOM, we have succeeded in reducing the volume of emissions generated virtually to zero or less as this material hardens by absorbing CO_2.

SUQCEM (ultrahigh-strength fiber-reinforced mortar)

Jointly developed by DENKA, Kajima Corporation, Sumitomo (SEI) Steel Wire Corporation and Sumitomo Mitsui Construction Co., Ltd., SUQCEM incorporates special steel fibers to achieve superior tensile strength and fracture toughness, thereby eliminating the need for the steel reinforcement of concrete structures.

Slurry Shot Method (employing NATMIC US-32, US-50)

A construction method employing shotcrete and quick-hardening agents for mortar. When mixed into cement, NATMIC products trigger hydration reactions and rapidly harden cement, thereby reducing concrete splash and preventing the flaking off of the concrete surface.

Our Inorganic Products That Are Used in a Wide Variety of Fields

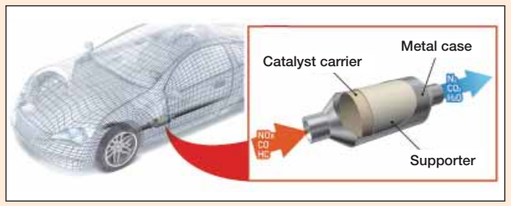
DENKA ALCEN (alumina fiber)

Consisting mainly of alumina and silica, this crystalline alumina short fiber is used as a high-temperature heat insulator. In recent years, applications for DENKA ALCEN are expanding, particularly for use in exhaust gas purification devices for automobiles.

AZUMIN (magnesium humate fertilizer)

It has been confirmed that AZUMIN, which incorporates humic acid as a main ingredient, helps the roots of agricultural crops absorb more nutrients and water, thereby improving the yield of salt-damaged farmland after the desalination process.*

* Please visit the website of DENKA Azumin Co., Ltd. to see the performance of AZUMIN in areas affected by tsunami flooding following the Great East Japan Earthquake.
http://www.denka-azumin.co.jp/howto/salt.html (only in Japanese)



Employing Proprietary Technologies, We Offer Products and Solutions That Contribute to Environmental Load Reduction and Social Development.

Elastomers & Performance Plastics Division				
Category	Department	Product Name	Application	Details of Contribution Effects
Technologies that support environment-friendly products	Elastomers & Acetylene Black Dept.	Chloroprene rubber	Gaskets for photovoltaic panels	Improving the flame resistance of roof panel gaskets
			Vibration insulation rubber for wind power generation	Used as a vibration insulation rubber for wind turbine nacelles
			Charging cables for electric vehicles	Improving the flame resistance of charging cables
		Acetylene black	Lithium-ion secondary cells	Used as a conductive aid
Improve customers' operational processes	Elastomers & Acetylene Black Dept.	Chloroprene latex	Aqueous adhesives	Reducing the use of organic solvents in the fixing process and thereby contributing to the reduction of VOCs and the improvement of the workplace environment
Reduce energy and resource consumption	Elastomers & Acetylene Black Dept.	Acetylene black	Tire bladders	Incorporated in bladders used in the manufacture (vulcanization) of tires to improve heat conductivity and thus shorten vulcanization time (contributing to energy savings)
	Performance Plastics Dept.	CLEAREN	Food packaging materials	CLEAREN has a processing temperature for sheet that is 50C° lower than that of the competitive material PET-G. It is also lightweight (20% lighter than PET-G) and thus requires less energy in transportation per unit area and volume.
		MS Polymer	Transparent molded resin products	Incorporating PS as an ingredient, MS Polymer is lighter than resins used for the same applications that consist only of PMMA (6% lighter than PMMA). Therefore, MS Polymer requires less energy in transportation per unit area and volume.

Life Science & Environment Products Division				
Category	Department	Product Name	Application	Details of Contribution Effects
Technologies that support environment-friendly products	Environmental Film Dept.	DX FILM	Photovoltaic back sheets	Used for the back sheet material of photovoltaic panels, which generate clean energy
Provide weight-saving benefits for users	Household Packaging Materials Dept.	SOFRIA	Food containers	Lighter than its competitor A-PET when molded to the same thickness, SOFRIA is used as a material for food containers.
	DENKA Polymer Co., Ltd.	Easy Disposal Pack	Food packaging	As it can be easily compressed after use, the Easy Disposal Pack helps reduce the bulk of food packaging waste.
Reduce energy and resource consumption	Housing & Environmental Materials Dept.	Rain Oasis	Rainwater storage system	Used to collect rainwater through rain gutters. Collected rainwater may be used for watering the garden, cooling pavements and washing cars, contributing to the effective utilization of water resources.
		TOYODRAIN	Corrugated pipes for construction and agricultural use	Used in construction and farmland development, TOYODRAIN contributes to the effective utilization of water resources.
		Rain gutters	Housing materials	Used in residential housing and buildings, rain gutters contribute to the effective utilization of rainwater.
Contribute to society	Medical Science Dept.	Macromolecular sodium hyaluronate preparation	Joint function improvement agent	Helping enhance quality of life by improving joint function

Electronics & Innovative Products Division				
Category	Department	Product Name	Application	Details of Contribution Effects
Technologies that support environment-friendly products	Advanced Specialty Materials Dept.	Spherical fused silica filler	Semiconductor encapsulant fillers	Reducing the use of environmentally hazardous flame-retardant fillers
		Spherical alumina	LEDs	Inserted into a resin matrix as a heat-conducting filler for the purpose of effectively dissipating the heat generated by LED chips and thereby enhancing LED's luminance
		BN powder	LEDs	Inserted into a resin matrix as a heat-conducting filler for the purpose of effectively dissipating the heat generated by LED chips and thereby enhancing LED's luminance
		Molded BN products	LED manufacturing equipment	Used in LED chip manufacturing equipment as an excellent, easy to cast insulation material
		ALONBRIGHT	Phosphor for LEDs	Used in backlights for LCD TVs and LED lighting to reduce their energy consumption
		Silicon nitride	Bearings for wind power generation facilities' turbines	Used in the bearings of wind power generation facilities' turbines, which produce clean energy, this high-strength ceramic improves the durability of these components and thereby significantly reduces the facility maintenance workload.
	Electronic Products Dept.	ALSINK, ANP	Railway industry, industrial instruments, electric and hybrid vehicles	Used as a high-temperature heat dissipater in drive transistors as well as in electric insulation substrates to improve inverters' efficiency in using and controlling electricity, they also facilitate the downsizing of these components.
		HITTPLATE Thermally conductive sheets	Air conditioners, automotive parts	Used as a high-temperature heat dissipater in drive transistors as well as in electric insulation substrates to improve inverters' efficiency in using and controlling electricity
			LEDs	Used to improve LED luminance by effectively dissipating the heat generated by LED chips
		Thermally conductive sheets	Automotive parts, smartphones and tablets	Used as thermal materials to dissipate the heat generated by power semiconductor devices for electric and hybrid vehicles, these materials contribute not only to the downsizing of automotive components but also help in the creation of eco-friendly solutions.
Improve customers' operational processes	Adhesives & Solutions Dept.	TEMPLOC, SOLARLOC	Temporary adhesives for the processing of glass in smartphones	Unlike previous temporary adhesives removable only with organic solvents, these products can be removed with hot water, thereby reducing potential health hazards for workers.
		HARDLOC (SGA)	Metal adhesion (substitute for welding)	An adhesive that hardens at room temperature and is capable of binding metal materials together. This product can be substitute for welding and thereby contribute to energy savings.

Reference

DENKA Group Products and Technologies That Contribute to Society

DENKA CHLOROPRENE (chloroprene rubber)

Boasting superior elasticity as well as oil and flame resistance, this product is used in a wide variety of industrial fields, such as automotive parts, wire covering, industrial equipment, construction materials and adhesives. DENKA retains the global top share of the chloroprene rubber market.

DENKA BLACK (acetylene black)

Incorporating graphitized particles with chain-like structure, this product boasts electrical and thermal conductivity and is used in dry batteries, lithium-ion secondary cells, power cables and semiconductor packaging materials.

DENKA DX FILM

In addition to weather, chemical and pollution resistance properties characteristic of polyvinylidene difluoride (PVDF), this film has a multilayered structure that gives it superior adhesiveness to substrates and is used for such applications as the back sheet material of photovoltaic cells for their protection.

Easy-Disposal Pack

Produced by DENKA Polymer Co., Ltd., this food packaging named "Kushatto Pack" is made of novel material to deliver significant weight savings. It can be easily crumpled, remaining in this form and thus reducing waste volume.

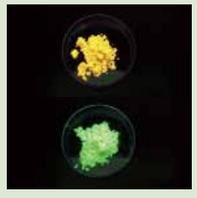
Macromolecular Sodium Hyaluronate

Made using high-molecular hyaluronic acid, an active pharmaceutical ingredient that DENKA has developed independently, this pharmaceutical product helps improve joint function. (Manufactured and sold by Chugai Pharmaceutical Co., Ltd.)

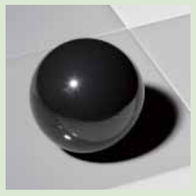
Products That Support Environment-Friendly Technologies

DENKA HITTPLATE is a thermally conductive insulated metal substrate developed to address the growing call for the miniaturization and high-density integration of ICs, and is used in various power-saving devices.

ALONBRIGHT is a weather-resistant nitride-type phosphor that retains its fluorescent intensity even at high temperatures. This product helps to reduce the energy consumption of liquid crystal televisions, personal computers, mobile terminals and LED lighting.



Silicon nitride is a non-oxide ceramic boasting high heat resistance as well as superior anti-corrosion and wear properties. Silicon nitride is used in automotive engine parts, industrial machinery components, electronic equipment and wind turbine generator bearings.



TEMPLOC is a temporary fixing agent that hardens with a short UV exposure and is easy to remove with hot water. Boasting adhering ability equivalent to or greater than conventional thermoplastic adhesives, such as waxes, this product significantly speeds up the machining process of electronic materials.

Reference

Utilization of Environment- and Energy-Related Subsidies

Developing technologies that reduce environmental burden and energy consumption through the proactive utilization of the subsidy system

Initiatives under the Government Subsidy Programs

As part of its activities to reduce environmental burden as well as energy consumption, DENKA actively utilizes subsidy schemes provided by the Japanese Ministry of the Environment (MOE) and the Ministry of Economy, Trade and Industry (METI). It also utilizes subsidies aimed at securing private-sector cooperation in government-led advanced technology pilot projects as well as at encouraging Japan-based production and R&D facility construction.

- During the fiscal 2010 to 2012 period, DENKA received subsidies and approvals for subsidies for eight projects.
- As for energy-saving initiatives, the Omi Plant's cement section and the Chiba Plant's styrene monomer section have succeeded in decreasing annual energy consumption well in excess of their targets. Similarly, the Omi Plant's POVAL production facilities are expected to reduce energy consumption in fiscal 2013.
- Among initiatives aimed at reducing environmental burden, the Shibukawa Plant was able to considerably surpass its target for CO_2 emissions reduction, entitling it to CO_2 emission credits. The Omuta Plant succeeded in developing a method to recycle slaked lime, a byproduct of acetylene manufacture, into cement products.
- The Omuta Plant won two governmental pilot projects for testing advanced silicon nitriding and boron nitride production facilities under the Innovation Center Establishment Assistance Program. Construction is now under way at the Chiba Plant to establish an acetylene black production facility that utilizes the Domestic Business Location Promotion Project Subsidy.

	Project	Business Site	Subsidy (received in fiscal 2012)
1	Energy-saving initiative involving the introduction of new facilities (burners for cement calcining and induced draft fans for cooling)	Omi Plant	Subsidy program for the rationalization of business operators' energy use (ANRE,* METI)
2	Energy-saving initiative utilizing the latest technologies at petrochemical plants (styrene monomer-related facilities)	Chiba Plant	Subsidy program for the rationalization of business operators' energy use (ANRE, METI)
3	Energy saving initiative involving the improvement of heat recovery at the Omi Plant's POVAL production facilities	Omi Plant	Subsidy program for the rationalization of business operators' energy use (ANRE, METI)
4	CO_2 emissions reduction initiative through a fuel changeover from A-class heavy oil to town gas and LPG	Shibukawa Plant	Voluntary Emissions Trading Scheme (MOE)
5	Development of a method to recycle slaked lime generated from acetylene manufacture into cement products	Omuta Plant	Environment Research and Technology Development Fund (MOE)
6	Demonstration of a high-frequency induction furnace for silicon nitriding	Omuta Plant	Innovation Center Establishment Assistance Program (METI)
7	Demonstration of a boron nitride production facility (for use in next-generation high-heat conductive fillers)	Omuta Plant	Innovation Center Establishment Assistance Program (METI)
8	Establishment of a production facility for a high-performance conducting agent (acetylene black) for LiB	Omuta Plant	Domestic Business Location Promotion Project Subsidy (METI)

* Agency for Natural Resources and Energy (an organization under METI)

Reference

Life Cycle Assessment (LCA) Initiative

With Enhanced Cooperation Across the Entire Supply Chain, DENKA Is Striving to Reduce Its Environmental Impact Through Product Life Cycle Assessment.

Life Cycle Assessment (LCA) Initiative

We recognize that the development and provision of environment-friendly products is an important social mission. Life cycle assessment (LCA) is one of the criteria used to evaluate products of this kind. Taking this into account, we are promoting LCA for our mainstay products, with an eye to ensuring the sustainability of our corporate activities.

Current Initiatives:

- Utilizing LCA as a mean to promote energy saving and CO_2 reduction while spreading it throughout supply chain
- Promoting LCA aimed at developing environment-friendly products at six main domestic plants and one Group subsidiary

Reference

Environmental Accounting

We apply environmental accounting covering investments and spending and their environmental and economic effects

Conservation Costs

The Company's total environmental investments in fiscal 2012 was ¥3,776 million, of which environmental conservation costs associated with the introduction of energy-efficient facilities accounted for 36%, while the cost of environmental burden reduction measures and R&D spending focused on developing energy saving-related products each represented 31%.

Coverage: Plants and Research Institutes

Category		Details	Conservation Costs (millions of yen)	
			Investments	Expenses
1. Business site costs		(Subtotal)	2,590	2,627
	(1) Pollution prevention	Environmental burden reduction measures	1,165	2,120
	(2) Conservation	Energy saving	1,347	65
	(3) Recycling resources	Using resources effectively	77	442
2. Upstream and downstream costs		Changing raw materials	0	0
3. Administrative costs		Environmental education	2	39
4. R&D costs		Products that contribute to energy saving	1,183	940
5. Social activity costs		Environmental education	0	6
6. Environmental damage costs		Community relations	1	102
7. Others			0	0
Total			**3,776**	**3,714**

Conservation Effects

We calculated the environmental load data.

Environmental Load	Units	Fiscal 2011 Results	Fiscal 2012 Results	Effects
CO_2 emissions (from energy and non-energy sources)	10,000t	237	228	9
SOx emissions	t	217	116	101
NOx emissions	t	4,240	4,044	196
Soot and dust emissions	t	128	93	35
COD (BOD) discharges	t	1,295	864	431
Water used	1,000t	81,300	77,860	3,440
PRTR substance emissions	t	139	103	36
Waste	1,000t	138	132	6
Final waste disposal	t	228	180	48
CO_2 emissions from transportation	1,000t	35	35	(0)

Economic Effects

We calculated proceeds from selling waste, energy savings, reductions in waste treatment costs and yield improvements.

Category	Item	Details	Effects (millions of yen)
Profits	Proceeds from selling waste from core operations and income from recycling waste	Sales profits	406
Cost reductions	Lowering energy costs by conserving energy	Conserving energy	189
	Reducing waste treatment costs by conserving or recycling resources	Using resources effectively	33
Total			**628**

Reference

Consolidated Financial Statements

Consolidated Balance Sheets (Summary)

Millions of yen

Account item	As of Mar. 31, 2013	As of Mar. 31, 2012
Assets		
Current assets	**¥158,595**	**¥153,637**
Cash and deposits	10,800	8,308
Notes and accounts receivable, trade	77,111	78,059
Inventories	60,712	54,527
Other	10,474	13,162
Allowance for doubtful accounts	(503)	(419)
Non-current assets	**256,761**	**248,915**
Property, plant and equipment	206,214	201,637
Intangible fixed assets	1,243	1,770
Investment securities	42,665	38,889
Other	6,786	6,734
Allowance for doubtful accounts	(148)	(116)
Total assets	**¥415,356**	**¥402,552**
Liabilities		
Current liabilities	**¥170,752**	**¥160,676**
Notes and accounts payable, trade	55,226	52,367
Short-term loans	47,085	45,323
Commercial paper	14,000	13,000
Current portion of corporate bonds	10,000	10,000
Other current liabilities	44,440	39,985
Long-term liabilities	**63,894**	**69,139**
Bonds	15,000	15,000
Long-term loans	28,156	34,725
Other long-term liabilities	20,738	19,413
Total liabilities	**234,647**	**229,815**
Net Assets		
Shareholders' equity	**165,043**	**160,228**
Capital stock	36,998	36,998
Capital surplus	49,284	49,293
Retained earnings	80,693	80,327
Treasury stock	(1,933)	(6,390)
Accumulated other comprehensive income	**13,957**	**10,174**
Minority interests	**1,707**	**2,334**
Total net assets	**180,709**	**172,737**
Total liabilities and net assets	**¥415,356**	**¥402,552**

Consolidated Statements of Income (Summary)

Millions of yen

Account item	Fiscal 2012	Fiscal 2011
Net sales	**¥341,645**	**¥364,712**
Cost of sales	269,326	291,421
Selling, general and administrative expenses	53,501	52,576
Operating income	**18,817**	**20,713**
Non-operating income	3,414	2,608
Non-operating expense	4,407	4,326
Ordinary income	**17,824**	**18,996**
Extraordinary losses	590	1,657
Income before income taxes and minority interests	**17,233**	**17,338**
Income taxes—current	5,959	3,801
Income taxes—deferred	(132)	2,386
Minority interests in income (loss)	151	(179)
Net income	**¥ 11,255**	**¥ 11,330**

Consolidated Statements of Comprehensive Income

Millions of yen

Account item	Fiscal 2012	Fiscal 2011
Income before minority interests	**¥11,406**	**¥11,150**
Other comprehensive income		
Valuation difference on available-for-sale securities	2,380	263
Deferred gains or losses on hedges	1	4
Revaluation reserve for land	—	1,374
Foreign currency translation adjustments	1,357	(493)
Share of other comprehensive income of associates accounted for using equity method	80	(52)
Total other comprehensive income	3,820	1,095
Comprehensive Income	**¥15,227**	**¥12,246**
(Breakdown)		
Comprehensive income attributable to owners of the parent	15,033	12,439
Comprehensive income attributable to owners of the minority interests	194	(193)

Consolidated Statement of Shareholders' Equity for Fiscal 2012 (April 1, 2012, to March 31, 2013)

Millions of yen

	Shareholders' Equity				
	Capital Stock	Capital Surplus	Retained Earnings	Treasury Stock	Total Shareholders' Equity
Balance at April 1, 2012	**36,998**	**49,293**	**80,327**	**(6,390)**	**160,228**
Changes of items during the period					
Dividends from surplus			(4,783)		(4,783)
Net income			11,255		11,255
Impact of changes in the scope of consolidation			95		95
Impact of mergers with non-consolidated subsidiaries			208		208
Purchase of treasury stock				(1,956)	(1,956)
Disposal of treasury stock		0	(0)	1	1
Cancellation of treasury stock		(8)	(6,403)	6,412	—
Reversal of revaluation reserve for land			(4)		(4)
Net changes of items other than shareholders' equity					—
Total changes of items during the period	**—**	**(8)**	**366**	**4,457**	**4,815**
Balance at March 31, 2013	**36,998**	**49,284**	**80,693**	**(1,933)**	**165,043**

	Accumulated Other Comprehensive Income					Minority Interests	Total Net Assets
	Unrealized Gain on Other Securities	Deferred Gains or Losses on Hedges	Revaluation Reserve for Land	Foreign Currency Translation Adjustments	Total Accumulated Other Comprehensive Income		
Balance at April 1, 2012	**5,083**	**(1)**	**9,059**	**(3,967)**	**10,174**	**2,334**	**172,737**
Changes of items during the period							
Dividends from surplus					—		(4,783)
Net income					—		11,255
Impact of changes in the scope of consolidation					—		95
Impact of mergers with non-consolidated subsidiaries					—		208
Purchase of treasury stock					—		(1,956)
Disposal of treasury stock					—		1
Cancellation of treasury stock					—		—
Reversal of revaluation reserve for land					—		(4)
Net changes of items other than shareholders' equity	2,433	1	4	1,343	3,783	(626)	3,156
Total changes of items during the period	**2,433**	**1**	**4**	**1,343**	**3,783**	**(626)**	**7,972**
Balance at March 31, 2013	**7,516**	**—**	**9,064**	**(2,623)**	**13,957**	**1,707**	**180,709**

Consolidated Statements of Cash Flows (Summary)

Millions of yen

Account item	Fiscal 2012	Fiscal 2011
Net cash provided by operating activities	**40,215**	**28,521**
Net cash used in investing activities	**(25,864)**	**(22,363)**
Net cash used in financing activities	**(12,784)**	**(4,050)**
Effect of exchange rate changes on cash and cash equivalents	**153**	**(59)**
Net increase in cash and cash equivalents	**1,720**	**2,047**
Cash and cash equivalents at the beginning of the year	**8,207**	**6,160**
Increase in cash and cash equivalents due to the new consolidation of subsidiaries	**481**	**—**
Increase in cash and cash equivalents due to the merger of non-consolidated subsidiaries	**270**	**—**
Cash and cash equivalents at the end of the year	**10,680**	**8,207**

Global Reporting Initiative (GRI) Content Index

Please see below to find disclosure information listed in the *Sustainability Reporting Guidelines Version 3.1* (G3.1).

Note: Ref. = References (PDF), Site = Site Reports (PDF)

Section	Disclosure	Location of Disclosure
PART I: Profile Disclosures		
1. Strategy and Analysis		
1.1	Statement from the most senior decision-maker of the organization	• To Our Stakeholders (p.4-7)
1.2	Description of key impacts, risks, and opportunities	• To Our Stakeholders (p.4-7) • The DENKA Group's CSR (p.10-11) • Fiscal 2012 Overview (p.14) • Renewing DENKA100 Growth Strategies (p.15) • Responsible Care Activities (Ref. p.2)
2. Organizational Profile		
2.1	Name of the organization	• Corporate Profile (p.38)
2.2	Primary brands, products, and/or services	• DENKA's Four New Divisions (p.17) • Products and Technologies that Contribute to Society (Ref. p.8-11)
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	• Corporate Profile (p.38) • Main Subsidiaries (Site p.16-26)
2.4	Location of organization's headquarters	• Corporate Profile (p.38)
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	• Corporate Profile (p.38) • Overseas Subsidiaries (Site p.16-21)
2.6	Nature of ownership and legal form	• Corporate Profile (p.38)
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/ beneficiaries)	—
2.8	Scale of the reporting organization	• Consolidated Financial Highlights (p.35) • Corporate Profile (p.38) • Consolidated Financial Statements (Ref. p.14-15)
2.9	Significant changes during the reporting period regarding size, structure, or ownership	• Fiscal 2012 Overview (p.14)
2.10	Awards received in the reporting period	• Our R&D Activities (p.16) • Site Reports p.3, 9, 15, 17, 25
3. Report Parameters		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided	• Editorial Policy (p.39) • Securing Worksite Safety (p.12)
3.2	Date of most recent previous report (if any)	• Online *CSR Report* archive (PDF)
3.3	Reporting cycle (annual, biennial, etc.)	• Online *CSR Report* archive (PDF)
3.4	Contact point for questions regarding the report or its contents	• Inquiries (p.39)
3.5	Process for defining report content	• The DENKA Group's CSR (p.10-11) • With Our Stakeholders (p.26-34)
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers)	• Environmental Management (p.18) • Editorial Policy (p.39)
3.7	State any specific limitations on the scope or boundary of the report	• Environmental Management (p.18) • Editorial Policy (p.39)
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	• Initiatives to Secure Our Electricity Supply (p.22-23)
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report	• Securing Worksite Safety (p.12-13) • Environmental Management (p.18) • Site Reports p.2-13
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g.,mergers/acquisitions, change of base years/periods, nature of business, measurement methods)	• Securing Worksite Safety (p.12-13) • Environmental Management (p.18) • Site Reports p.2-13
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	—
3.12	Table identifying the location of the Standard Disclosures in the report	• GRI Contents Index (Ref. p.16-19)
3.13	Policy and current practice with regard to seeking external assurance for the report	• Third-Party Opinions (p.36-37)
4. Governance, Commitments, and Engagement		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight	• Corporate Governance (p.8-9)
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	• Corporate Governance (p.8-9) • Executive Officers (p.39)
4.3	(For organizations that have a unitary board structure) The number and gender of members of the highest governance body that are independent and/or non-executive members	• Corporate Governance (p.8-9) • Executive Officers (p.39) • Financial Reports (in Japanese)
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	• Corporate Governance (p.8-9) • Communication with Shareholders and Investors and Public Relations (p.34)
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance)	• Financial Reports (in Japanese)
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	• Corporate Governance (p.8-9)
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity	• Corporate Governance (p.8-9)
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	• To Our Stakeholders (p.4-7) • The DENKA Group's CSR (p.10-11) • Fiscal 2012 Overview (p.14) • Renewing DENKA100 Growth Strategies (p.15) • Environmental Management (p.18)
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles	• Corporate Governance (p.8-9) • Responsible Care Activities (Ref. p.2)
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	• Corporate Governance (p.8-9) • Environmental Management (p.18) • Responsible Care Activities (Ref. p.2)
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	• Risk Management (p.9) • Securing Worksite Safety (p.12-13) • Initiatives at Supply Chain (p.30-31)
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	• Product Safety Management System (Ref. p.4-5) • Occupational Safety and Health Management System (Ref. p.6) • ISO 14001 and 9001 Management Systems (Ref. p.7)
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic	• Product Safety Management System (Ref. p.5)
4.14	List of stakeholder groups engaged by the organization	• With Our Stakeholders (p.26-34)
4.15	Basis for identification and selection of stakeholders with whom to engage	—
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	• With Our Stakeholders (p.26-34)
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	• The DENKA Group's CSR (p.10-11) • With Our Stakeholders (p.26-34)
PART II: Disclosures on Management Approach (DMAs) and Performance Indicators		
Economic		
DMA	Disclosure on Management Approach	• To Our Stakeholders (p.4-7) • The DENKA Group's CSR (p.10-11) • Fiscal 2012 Overview (p.14) • Renewing DENKA100 Growth Strategies (p.15) • Our R&D Activities (p.16) • DENKA's Four New Divisions (p.17)
Economic performance		
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	• Consolidated Financial Highlights (p.35) • Consolidated Financial Statements (Ref. p.14-15)
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	• To Our Stakeholders (p.4-7) • Environmental Management (p.18)
EC3	Coverage of the organization's defined benefit plan obligations	—
EC4	Significant financial assistance received from government	• Environment- and Energy-Related Subsidies (Ref. p.12) • Site Reports p.5
Market presence		
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	—
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	• CSR Procurement (p.30)
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	—
Indirect economic impacts		
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	• DENKA's Four New Divisions (p.17) • Initiatives with Society (p.32-33) • Products and Technologies that Contribute to Society (Ref. p.8-11)
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts	• Fiscal 2012 Overview (p.14)
Environmental		
DMA	Disclosure on Management Approach	• To Our Stakeholders (p.4-7) • Environmental Management (p.18)
Materials		
EN1	Materials used by weight or volume	• Overview of Environmental Burdens (p.18)
EN2	Percentage of materials used that are recycled input materials	• Overview of Environmental Burdens (p.18) • Recycling Business in Cement Production (p.24-25)
Energy		
EN3	Direct energy consumption by primary energy source	• Overview of Environmental Burdens (p.18)
EN4	Indirect energy consumption by primary source	—
EN5	Energy saved due to conservation and efficiency improvements	• Environmental Performance (p.19) • Streamlining Logistics (p.21)
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives	• To Our Stakeholders (p.4-7) • DENKA's Four New Divisions (p.17) • Environmental Management (p.18) • Products and Technologies that Contribute to Society (Ref. p.8-11)
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	—
Water		
EN8	Total water withdrawal by source	• Overview of Environmental Burdens (p.18) • Site Reports
EN9	Water sources significantly affected by withdrawal of water	• Initiatives to Secure Our Electricity Supply (p.22)
EN10	Percentage and total volume of water recycled and reused	—
Biodiversity		
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	—

Section	Disclosure	Location of Disclosure
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	• Site Reports p.3
EN13	Habitats protected or restored	• Site Reports p.3
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	• Site Reports p.3
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	—
Emissions, effluents and waste		
EN16	Total direct and indirect greenhouse gas emissions by weight	• Environmental Management (p.18-19) • Site Reports p.2-13
EN17	Other relevant indirect greenhouse gas emissions by weight	—
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	• To Our Stakeholders (p.4-7) • Environmental Management (p.18-19)
EN19	Emissions of ozone-depleting substances by weight	• PRTR Substance Emissions (p.20)
EN20	NOx, SOx, and other significant air emissions by type and weight	• SOx and NOx Emissions (p.19)
EN21	Total water discharge by quality and destination	• Environmental Management (p.18-19) • Site Reports p.2-13
EN22	Total weight of waste by type and disposal method	• Environmental Management (p.18-19) • Site Reports p.2-13
EN23	Total number and volume of significant spills	• Securing Worksite Safety (p.12)
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	—
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	—
Products and services		
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	• DENKA's Four New Divisions (p.17) • Products and Technologies that Contribute to Society (Ref. p.8-11) • Initiatives to Secure Our Electricity Supply (p.22-23)
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	• DENKA Polymer (Site p.22)
Compliance		
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	—
Transport		
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	• Streamlining Logistics (p.21)
Overall		
EN30	Total environmental protection expenditures and investments by type	• Environmental Accounting (Ref. p.13)
Social: Labor Practices and Decent Work		
DMA	Disclosure on Management Approach	• To Our Stakeholders (p.4-7) • Initiatives with Employees (p.26) • Site Reports
Employment		
LA1	Total workforce by employment type, employment contract, and region, broken down by gender	• Corporate Profile (p.38) • Site Reports
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region	• Initiatives with Employees (p.26-29)
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	• Initiatives with Employees (p.26-29)
LA15	Return to work and retention rates after parental leave, by gender	• Initiatives with Employees (p.27)
Labor/management relations		
LA4	Percentage of employees covered by collective bargaining agreements	• Financial Reports (in Japanese)
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	—
Occupational health and safety		
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	—
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender	• Securing Worksite Safety (p.12)
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	—
LA9	Health and safety topics covered in formal agreements with trade unions	• Initiatives with Employees (p.27)
Training and education		
LA10	Average hours of training per year per employee by gender, and by employee category	—
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	• Employee Education (p.28)
LA12	Percentage of employees receiving regular performance and career development reviews, by gender	—
Diversity and equal opportunity		
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	• Employing People with Disabilities (p.27)
Equal remuneration for women and men		
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	—
Social: Human Rights		
DMA	Disclosure on Management Approach	• To Our Stakeholders (p.4-7) • The DENKA Group Guidelines (Ref. p.1) • CSR Procurement (p.30)
Investment and procurement practices		
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening	—
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken	• CSR Procurement (p.30)

Section	Disclosure	Location of Disclosure
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	—
Non-discrimination		
HR4	Total number of incidents of discrimination and actions taken	—
Freedom of association and collective bargaining		
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights	—
Child labor		
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	• CSR Procurement (p.30)
Forced and compulsory labor		
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	• CSR Procurement (p.30)
Security practices		
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	• The DENKA Group Guidelines (Ref. p.1)
Indigenous rights		
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	—
Assessment		
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	—
Remediation		
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	• Compliance Hotline System (p.9)
Social: Society		
DMA	Disclosure on Management Approach	• To Our Stakeholders (p.4-7) • Initiatives with Society (p.32-33) • Site Reports
Local communities		
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	—
SO9	Operations with significant potential or actual negative impacts on local communities	• To Our Stakeholders (p.4) • Reports on Accidents at the Omi and Chiba Plants (p.7) • Securing Worksite Safety (p.12-13)
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	• To Our Stakeholders (p.4) • Reports on Accidents at the Omi and Chiba Plants (p.7) • Securing Worksite Safety (p.12-13)
Corruption		
SO2	Percentage and total number of business units analyzed for risks related to corruption	—
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures	• Corporate Governance (p.8-9)
SO4	Actions taken in response to incidents of corruption	• Corporate Governance (p.8-9)
Public policy		
SO5	Public policy positions and participation in public policy development and lobbying	• Environment- and Energy-Related Subsidies (Ref. p.12)
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	—
Anti-competitive behavior		
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	• Corporate Governance (p.9)
Compliance		
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	—
Social: Product Responsibility		
DMA	Disclosure on Management Approach	• Initiatives at Supply Chain (p.30-31) • Product Safety Management System (Ref. p.4-5) • ISO 9001 Management System (Ref. p.7)
Customer health and safety		
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	• Initiatives at Supply Chain (p.30-31) • Product Safety Management System (Ref. p.4-5) • ISO 9001 Management System (Ref. p.7)
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	• Initiatives at Supply Chain (p.30-31) • Product Safety Management System (Ref. p.4-5)
Product and service labelling		
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	• DENKA's Four New Divisions (p.17)
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	• Initiatives at Supply Chain (p.30-31)
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	• Initiatives at Supply Chain (p.30-31)
Marketing communications		
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	• Information Security/System Administration/ Online Information Management (Ref. p.3)
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes	• Information Security/System Administration/ Online Information Management (Ref. p.3)
Customer privacy		
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	—
Compliance		
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	—