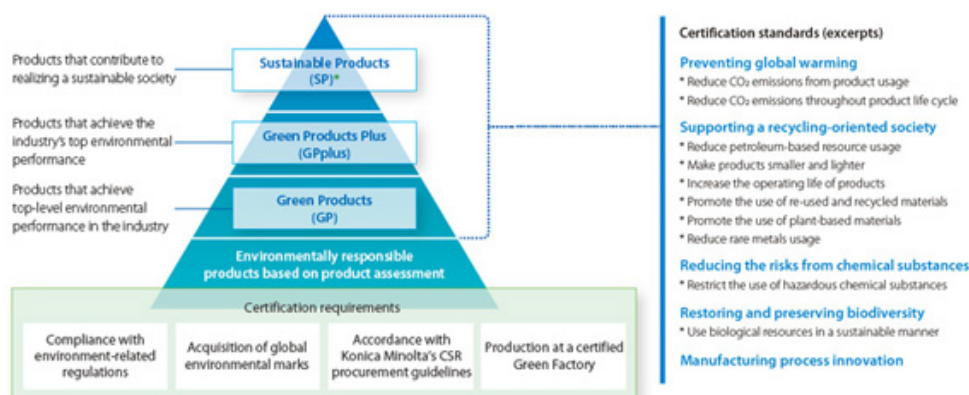# Green Products (product initiatives)

**Konica Minolta is striving to develop highly competitive products that boost the company's earnings while helping customers and society reduce environmental impact.**



Konica Minolta has introduced a Green Products Certification System, its own unique system for evaluating and certifying products with superior environmental performance. The system aims to create environmental value suited to different businesses and product characteristics with the purpose of helping customers and society at large to reduce environmental impact.

Under this system, standards are set for each of the different businesses and product characteristics, and products that meet these standards are certified at one of three levels. The targets are basically set as early as the product planning stage. Not only must the product meet standards for environmental performance, it must also fulfill requirements such as being produced at a Green Factory certified plant, compliance with environment-related regulations and conforming to management in accordance with the Group's CSR procurement plan.

Since the system went into full operation in July 2011, 47 products in fiscal 2011, 28 in fiscal 2012, and 39 in fiscal 2013 have been certified.



\*  Sustainable Products (SP) certification standards require that the product not only embody superior environmental performance not typically achieved by earlier products, but also incorporate original technology. While seeking to reduce the environmental impact of all of its products by setting a very challenging certification level, Konica Minolta aims to promote innovation and contribute more proactively to sustainability.

## 2013 Targets and Results

Konica Minolta has set target sales shares for green products in its medium-term environmental plan and is striving to develop highly competitive products that boost the company's earnings while helping customers and society reduce environmental impact. The environmental performance of these certified products are disclosed in catalogues, on websites, and elsewhere in an effort to spread their use.

In fiscal 2013, the sales share for Green Products Plus, which exhibits industry-leading environmental performance, reached 37%, while the overall sales share for Green Products, which have marked top-level environmental performance in the industry, reached 41%.

**Target Sales Share for Green Products**

|  | **Fiscal 2013 Target** | **Fiscal 2013 Results** |
|---|---|---|
| Green Products Plus (GPplus) | 20% | 37% |
| Green Products (GP) | 30% | 41% |

The creation and promotion of Green Products also led to the achievement of the Group's fiscal 2013 targets for the reduction of $CO_2$ emissions from product usage, the reduction of petroleum-based resource usage, and chemical substance management, which are all product-related environmental goals.



$CO_2$ Emissions from Product Usage

Green Products (product initiatives)
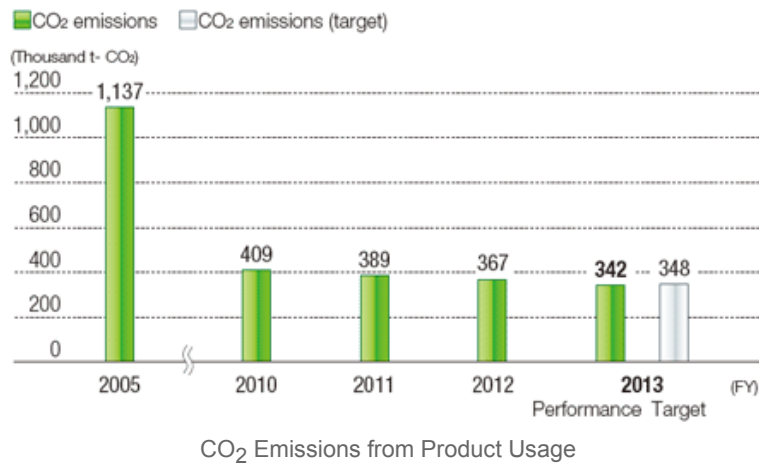
# Specific initiatives in each business

## Initiatives in the Business Technologies Business

The Business Technologies Business pursues such features as energy savings, the use of recycled materials, and smaller, lighter bodies in its MFPs for the office and its digital printers for the production printing market.

With respect to energy savings, in addition to substantially reducing the typical electricity consumption (TEC) compared to conventional models, Konica Minolta equips these products with functions that encourage customers to save electricity, such as a built-in proximity sensor for natural recovery from sleep mode, a weekly timer that includes a learning function, and an eco indicator that visualizes electricity, paper, and toner savings.

Konica Minolta uses three types of recycled materials: recycled PC/PET, recycled PC/ABS, and bioplastic. The company has increased the fire resistance and expanded the scope of use of recycled PC/PET, which it developed with its cutting-edge chemical processing technology. Recycled PC/PET is a mixed recycled material made of recycled PC and recycled PET. Recycled PC is made by recovering and recycling gallon bottles used in water coolers while recycled PET is made by recovering and recycling PET bottles. Recycled material is used in 21 locations on the bodies of the color MFPs bizhub C554e, C454e, C364e, C284e, and C224e and the monochrome MFPs bizhub 554e, 454e, 364e, 284e, and 224e. The percentage surface area of recycled materials out of the total amount of plastic in the body has been increased to about 50%.

## Initiatives in the Industrial Business

In the field of display materials, Konica Minolta has reduced environmental impact and enhanced product competitiveness by creating thinner products, such as 40 µm thick TAC film, which is one of the company's strengths, VA-TAC and 60 µm thick TAC film for large TVs, and an ultra-thin 25 µm thick TAC film, which it introduced to the mobile devices market ahead of the industry.

In the field of functional window films, Konica Minolta ensures electromagnetic wave transparency by not using metallic reflective film, thereby achieving top-level thermal insulation (the degree of the blocking of total solar energy) in a product's class against other products with the same level of brightness (visible light transmittance) in the automotive thermal insulation films market. Thus the thermal insulation effect of Konica Minolta's products helps customers reduce environmental impact by reducing energy consumption when using air-conditioning.

## Initiatives in the Healthcare Business

The Healthcare Business is expanding the Aero DR series of flat panel X-ray detectors with an ultra-light design. The ultra-light design means that it is highly portable in medical settings and this translates into a lower environmental impact. Moreover, the company improved user friendliness and energy savings by substantially reducing battery-charging time through the use of a lithium-ion capacitor and energy-saving design technology in the Aero DR.

## Certified Green Products

(As of April 1, 2014)

- Office Equipment
- Optical Products
- Healthcare Products
- Other products (Next-generation lighting, etc.)
- Performance Materials
- Sensing Products
- Industrial Inkjet

# Certified Green Products

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### Green Products (Office Equipment)

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**Applicable product <Green Products category>**

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Environmental performance
(i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
* : Industry-top environmental performance or industry-first environmental technologies

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**Color MFP "bizhub C25" <GP>**

(ii) - Top class lightweight (45% reduction compared to our conventional model).
- Adopted plant-based biomass resin for toner.

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**Color MFP "bizhub C754/654" <GPplus>**

(i) * Best in class in low power consumption (TEC) (as of the February 2012 launch).
bizhub C754 : 5.66kWh/week
bizhub C654 : 4.94kWh/week

(ii) * Best in class in compact size (as of the February 2012 launch).
* The industry's first using fire resistance and recycled PC/PET (as of the February 2012 launch date).

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**Color MFP "bizhub C554/C454/C364/C284/C224" <GPplus>**

(i) - More than 30% reduction of power consumption (TEC) (compared to our previous model).
bizhub C554 : approx. 34% reduction (compared to bizhub C552DS)
bizhub C454 : approx. 37% reduction (compared to bizhub C452)
bizhub C364 : approx. 39% reduction (compared to bizhub C360)
bizhub C284 : approx. 42% reduction (compared to bizhub C280)
bizhub C224 : approx. 44% reduction (compared to bizhub C220)

(ii) * Uses first-in-class flame-resistant recycled PC/PET (as of the June 2012 launch date).

(iv) - Industry-top-class quietness when operated (as of the June 2012 launch date).

## Color MFP "bizhub C554e/C454e/C364e/C284e/C224e" <GPplus>

(i) - More than 8% reduction of power consumption (TEC[*1]) (compared to our previous model).
bizhubC554e : approx. 8% reduction (compared to bizhub C554)
bizhubC454e : approx. 11% reduction (compared to bizhub C454)
bizhubC364e : approx. 13% reduction (compared to bizhub C364)
bizhubC284e : approx. 17% reduction (compared to bizhub C284)
bizhubC224e : approx. 18% reduction (compared to bizhub C224)
(ii) * Uses first-in-class flame-resistant recycled PC/PET (as of the May 2013 launch date).
(iv) - Industry-top-class quietness when operated (as of the May 2013 launch date).

## Color MFP "bizhub C754e/C654e" <GPplus>

(ii) * First-in-class in installation-area saving and compact size (as of launch in July 2013).
* Uses industry top-class flame-resistant recycled PC/PET (as of launch in July 2013).
- Wasted copy reduction function
>Helps reduce customer paper consumption and waste, using print preview and a blank copy elimination function

(i) - Auto power saving function
>Helps reduce power consumption ($CO_2$ emissions) and customer utility costs using a weekly timer and eco-indicator display.

## A4 color MFP "bizhub C3850/C3350" <GPplus>

(ii) * Uses first-in-class flame-resistant recycled PC/PET (as of launch in March 2014)
- Wasted copy reduction function
>Helps reduce customer paper consumption and waste, using print preview and a blank copy elimination function.

(i) - Cloud connectivity function
>Helps improve customer efficiency through direct printing and scanning using cloud computing.

## Monochrome MFP "bizhub 42/36" <GP>

(ii) - The industry's smallest and lightest in the A3 MFPs (as of the November 2011 launch).
- Adopted plant-based biomass resin for toner and a label on the body.

## bizhub PRO 951 <GPplus>

(ii) * First in class using fire-resistant, recycled PET (as of the May 2012 launch date).
* Employs plant-based biomass resin for main unit and toner.

## Monochrome MFP"bizhub 754/654/754e/654e" <GPplus>

(ii) * Uses industry top-class flame-resistant recycled PC/PET (as of launch in Sept. 2013)
(i) - Wasted copy reduction function
>Helps reduce customer paper consumption and waste, using print preview and a blank copy elimination function

(i) - Auto power saving function
>Helps reduce power consumption ($CO_2$ emissions) and customer utility costs using a weekly timer and eco-indicator display

## Monochrome MFP"bizhub 554e/454e/364e/284e/224e" <GPplus>

(ii) * Fist-in-class in low power consumption (TEC)
*bizhub 224e: 1.20 kWh (as of launch in Sept. 2013)
-Substantial reduction in power consumption (TEC) compared to our previous models
bizhub 554e : approx. 36% reduction (compared to bizhub 552)
bizhub 454e : approx. 6.7% reduction (compared to bizhub 423)
bizhub 364e : approx. 22% reduction (compared to bizhub 363)
bizhub 284e : approx. 36% reduction (compared to bizhub 283)
bizhub 224e : approx. 44.9% reduction (compared to bizhub 223)

-Auto power saving function
>Helps reduce power consumption (CO2 emissions) and customer utility costs using a weekly timer with learning function

(ii) *Uses industry top-class flame-resistant recycled PC/PET
*First-in-class in installation surface area *bizhub 554e (as of launch in Sept. 2013)
-Wasted copy reduction function
>Helps reduce customer paper consumption and waste using a blank copy elimination function

## Monochrome Printing System bizhub PRESS 1250/1250P/1052

(ii) * Uses first-in-class flame-resistant recycled PET (as of launch in August 2012)
(iV) * Uses plant-based bioplastic in the body and toner

## Full-color digital printing system: bizhub PRESS C1070/C1070P/C1060/C1060L <GPplus>

(ii) * Uses first-in-class flame-resistant recycled PET (as of launch in March 2014)
- Features plant-based biomass resin in the main unit and toner cartridge

# Certified Green Products

## Green Products (Performance Materials)

**| Applicable product <Green Products category>**

Environmental performance
(i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
* : Industry-top environmental performance or industry-first environmental technologies

**ICE-μ CT70heat protection film <GP>**
**ICE-μ SS70heat protection film <GP>**

(i) - Achieved best-in-class heat-protective performance*
>Helps lower air conditioning load for the customer's vehicle, by providing a high level of heat shielding performance (high rate of total solar energy shielding), while maintaining interior brightness (high rate of visible light transmittance)

\*     Electromagnetic permeable, 70% visible-light transmission class

**ICE-μ SS85 heat protection film <GP>**

(i) - Achieved best-in-class heat-protective performance[*1]

  - 6% improvement[*2] in the fuel economy of the customer's vehicle
>Helps lower air conditioning load for the customer's vehicle, by providing a high level of heat shielding performance (high rate of total solar energy shielding), while maintaining interior brightness (high rate of visible light transmittance)



*1  Electromagnetic permeable, 86% visible-light transmission class

*2  Based on Konica Minolta testing
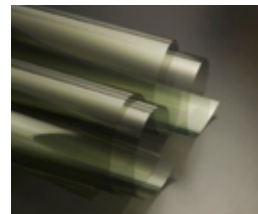
# Certified Green Products

## Green Products (Optical Products)

**Applicable product <Green Products category>**

Environmental performance
(i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
\* : Industry-top environmental performance or industry-first environmental technologies

### Zoom lenses for digital still cameras, Green Products Registration No. OT-1 <GP>

(i) - 33% reduction of $CO_2$ emissions from product usage (compared to our previous device).
- 20% reduction of $CO_2$ emissions throughout product life cycle (compared to our previous device).

### Zoom lenses for digital still cameras, Green Products Registration No. OT-2 <GP>

(ii) - 24% of weight reduction (compared to our previous device).

### Zoom lenses for digital still cameras, Green Products Registration No. OT-5 <GP>

(i) - 11% reduction of $CO_2$ emissions from manufacturing process of lenses (compared to our previous device).
(ii) - 16% of weight reduction (compared to our previous device).

### Micro-camera module for mobile phone, Green Products Registration No. OT-1 <GP>

(i) - 85% reduction of power consumption of actuators for auto-focusing (compared to our previous device).
(ii) - 25% of volume reduction (compared to our previous device).
- Eliminating use of neodymium for actuators to drive lenses

### Zoom lenses for digital still cameras, Green Products Registration No. OT-6 <GP>

(i) - 12% of volume reduction (compared to our previous device).

### Zoom lenses for digital still cameras (Green Products registration number: OP-6) <GP>

(ii) \* 52% of volume reduction and 57% of weight reduction (compared to previous device).

### Zoom lenses for digital still cameras (Green Products registration number: OP-7) <GP>

(i) \* 14.2% reduction in $CO_2$ emissions throughout product life cycle (as assessed at time of lens production).
(ii) \* 5.3% weight reduction (compared to previous device).

**Optical microscope lens for semiconductor inspection equipment(Green Product registration number OP-9, OP-10) <GP>**

(ii) *Reduction in the weight to use ratio for the rare earth metal lanthanum (compared to previous device).
OP-9: 82% reduction
OP-10: 21% reduction

**Digital cinema zoom lens (Green Product registration number OP-12) <GP>**
**Digital cinema zoom lens (Green Product registration number OP-13) <GP>**
**Digital cinema zoom lens (Green Product registration number OP-14) <GP>**
**Digital cinema zoom lens (Green Product registration number OP-15) <GP>**
**Digital cinema zoom lens (Green Product registration number OP-16) <GP>**

(ii) *Reduced use rate by weight of rare earth lanthanum (compared to conventional model)
OP-12: 70% reduction
OP-13: 58% reduction
OP-14: 83% reduction
OP-15: 25% reduction
OP-16: 46% reduction

**Lens unit for digital still cameras(GP Registration No. OP-18) <GP>**

(i) - While maintaining optical performance, product lifecycle $CO_2$ emissions (during lens manufacturing) have been lowered by 11.1% by reducing the number of lens elements compared to the previous model.

**LED shelf lighting for refrigerator/freezer showcases, Green Products Registration No. OT-3 <GPplus>**

(i) * Development of a specially-shaped light guiding panel that effectively spreads the light from LEDs allowed a reduction of approximately 70% of the energy consumption of fluorescent shelf lighting.
(ii) - Has over double the life of fluorescent lighting.



**BD/DVD/CD-compatible plastic single objective lens for optical disks, Green Products Registration No. OT-4 <GPplus>**

(ii) * The industry's first BD/ DVD/CD-compatible plastic single objective lens for optical disks using diffraction optics technology. The use of petroleum-based resources has been reduced by over 50% (compared to our conventional devices).
* Smaller size made possible by reducing approximately 30% off the total length and outside diameter (compared to our conventional devices).

**Green Products (product initiatives)**
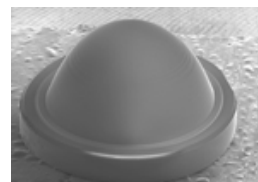
# Certified Green Products

> ## Green Products (Sensing Products)

**| Applicable product <Green Products category>**

> Environmental performance
> (i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
> * : Industry-top environmental performance or industry-first environmental technologies

### Reference PV cell "AK-100/110, AK-200, AK-120/130/140, AK-300" <GP>

(i) - Until now it has been difficult for anyone other than testing laboratories with specialized equipment to evaluate solar cells. The Reference PV cell AK-200 makes it possible for development and manufacturing sites to obtain highly reliable values and therefore is contributing to the R&D and rapid popularization of solar cells. (Contribution to the general adoption of renewable energy)



### Chlorophyll meter "SPAD-502Plus" <GP>

(iv) - Compared with other methods for measuring the amount of chlorophyll in plants such as rice, including chlorophyll measurement, infrared digital camera analysis and so on, the SPAD- 502Plus is portable and enables quick, simple and non-destructive measurement. Understanding the growth of crops makes it possible to apply the optimum quantity of fertilizer, avoiding over-fertilization and contributing to reduced environmental impact. (Sustainable use of biological resources)



### Spectrophotometer "CL-500A" <GP>

(i) - CL-500A is the world's first portable spectrophotometer calibrated to JIS/DIN standards. It is capable of evaluating how well the colors of objects can be rendered (color rendering). As a tool for evaluating color rendering, a diagnostic criteria for installed lighting proposed by the Ministry of the Environment in its Basic Policy for the Promotion of Procurement of Eco-Friendly Goods and Services, it contributes to research and development and quality improvements in energy-saving lighting, bearing in mind the quality of light.



### Chroma meter "CL-200A" <GP>

(i) - CL-200A is a handheld device for measuring color temperature based on miniaturization, optical and filter technologies. It contributes to the development of energy-saving lighting and lighting control systems that take into account the quality of light, such as the safety and comfort of the light environment.

## Illuminance meters "T-10A / MA" <GP>

(i) - As a high-precision, high-quality portable illuminance meter with multipoint measurement functions, it contributes to promoting energysaving design in a wide range of fields related to lighting. It is an effective tool for checking not only illumination light sources themselves, but also light intensity and quality control and the energy-saving and safety properties of lighting in production areas and office environments.

# Certified Green Products

| Green Products (Healthcare Products) |
| --- |

## Applicable product <Green Products category>

> Environmental performance
> (i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
> * : Industry-top environmental performance or industry-first environmental technologies

### Cassette digital radiography detector "AeroDR" <GPplus>

(i) - Energy consumption when reading images has been cut by approximately 60%, and 90% when on standby (compared to our conventional devices). Continuous standby has been extended to 16 hours.
(ii) * Main unit weight 2.9kg (including battery). The world's lightest wireless DR (as of the April 2011 launch).
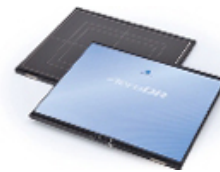
### Cassette digital radiography detector "AeroDR 17x17HQ" <GPplus>

(i) - Energy consumption when reading images has been cut by approximately 60%, and 90% when on standby (compared to our conventional devices). Continuous standby has been extended to 16 hours.
(ii) * Main unit weight 3.6kg (including battery). The world's lightest wireless DR of 17x17 inches (as of the February 2012 launch).
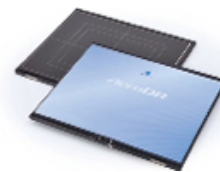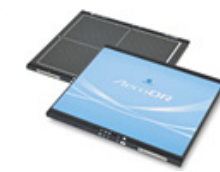
### Cassette digital radiography detector "AeroDR 10x12HQ " <GPplus>

(i) - Approx. 22% reduction in power consumption during image reading (compared to our previous model).

(ii) * World's lightest 10" x 12" wireless DR, at 1.7 kg for the main unit including battery (as of launch in July 2013).
- 77% reduction in foamed-resin packaging usage (compared to our previous model).

### AeroDR System component: "AeroDR Cradle 2" <GP>

(i) - Approx. 18% reduction in maximum power load during recharging (compared to our previous model).

(ii) - Installation space reduced by 49%, and product weight by 21% (compared to our previous model).
- Complete elimination of foamed-resin packaging
- Multi-size support
>Helps customers to save space and improve work efficiency by supporting AeroDR products of differing sizes.

**Desktop CR "REGIUS Σ" <GPplus>**

(i) - Power consumption at 100VA, less than 1/10 that of a film processor.
- 64% reduction of $CO_2$ emissions throughout product life cycle (compared to our conventional CR).
(ii) * The world's lightest cassette CR system at 28kg (as of the April 2011 launch).

**Desktop CR "REGIUS ΣII" <GPplus>**

(i) - Power consumption on driving has been cut by 20%, and 30% on standby (compared to our conventional devices).
(ii) * The world's lightest cassette CR system at 28kg (as of the June 2012 launch).

# Certified Green Products

> ## Green Products (Industrial Inkjet)

**Applicable product <Green Products category>**

> Environmental performance
> (i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
> * : Industry-top environmental performance or industry-first environmental technologies

### Inkjet printheads, KM1024 Series (KM1024L/ KM1024M/ KM1024S) <GP>

(i) - Approximately 50% reduction of $CO_2$ emissions during product usage by the development of the low-capacitance actuator (compared to our conventional devices).
(ii) - Approximately 20% reduction of the amount of petroleum-based resources usage. (compared to our conventional devices).
- Approximately 20% reduction of the space to be equipped and approximately 20% of weight reduction by slimming of the head (compared to our conventional devices).
- Approximately 70% reduction of consumption of the rare metal (compared to our conventional devices). :
(iii) - Approximately 70% reduction of hazardous chemical substances (compared to our conventional devices).

\* The above data applies to the environmental performance of KM1024M (14pl).
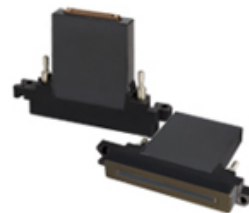
### Inkjet head KM1024i <GP>

(i) *Reduced use of petroleum-based resources by 61% per unit printing ability (compared to previous model)
Reduced weight by 68% per unit printing ability (compared to previous model)
(iii) *Reduced use of lead contained in PZT by 69% per unit printing ability (compared to previous model)

**Green Products (product initiatives)**

# Certified Green Products

<div style="border:1px solid">

**Green products (Other products:Next-generation lighting, etc.)**

</div>

**Applicable product <Green Products category>**

Environmental performance
(i) : Preventing Global Warming, (ii) : Supporting a Recycling-Oriented Society, (iii) : Reducing the Risk of Chemical Substances, (iv) : Restoring and preserving biodiversity, (v) : Enhancing environmental comfort of products when operated
* : Industry-top environmental performance or industry-first environmental technologies

**LED lighting unit for refrigerator/cooling rack (Green Products registration number: OT-3) <GPplus>**

(i) * Development of a specially shaped light guiding panel that effectively spreads the light from LEDs allowed a reduction of approximately 70% of the energy consumption of fluorescent shelf lighting.
(ii) * Has over double the life of fluorescent lighting.

**LED lighting <GPplus>**
**Symfos LED-TASKLIGHT (standard type) A5KH-200 (black)/ A5KH-300 (white) <GPplus>**
**Symfos LED-TASKLIGHT (high color rendering/high color temperature type) A5KH-410 <GPplus>**
**Symfos LED-TASKLIGHT (Qi wireless recharging function model) A6KH-200 (dark blue)/A6KH-300 (off-white) <GPplus>**

(i) * A light that is gentle on the eyes and in which the peculiar brightness of LED and multiple shadows has been reduced by developing a light guide plate that can change the LED light source into surface lighting
* The highest level of electricity consumption efficiency was achieved with a surface-emitting light using a light guide plate

Green Products (product initiatives)
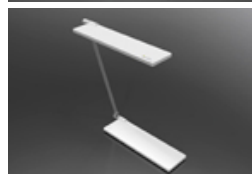
# Provision of product environmental information

**Actively supplying information concerning products using environmental labels**

## Type I Environmental Labels

Konica Minolta is actively promoting the acquisition of Type-I environmental certification labels. These labels indicate that a third-party institution has certified the low environmental impact of a product.

### Blue Angel Mark

Launched in Germany in 1978 as the world's first environmental labeling system, the Blue Angel Mark is granted to certify products and services that have a smaller environmental impact. Since receiving the world's first Blue Angel certification in the field of copiers in January 1992, Konica Minolta has continued to receive certification for new products by clearing the certification bar each time it has been raised.

### Eco Mark

The Eco Mark was established by the Japan Environment Association in 1989 as a standard environmental labeling system in Japan. Konica Minolta's basic policy is to obtain Eco Mark certification for all its office equipment.

### EcoLogo

Established by the Canadian government in 1988, EcoLogo is North America's most widely respected environmental standard and certification system. In 2009, Konica Minolta obtained EcoLogo certification, ahead of the competition, for 12 of its MFPs in the newly established Office Machines category.

### China Environmental Labeling Product Certification for Low-carbon Products

In 2010, the Chinese Ministry of Environmental Protection introduced a new low-carbon product certification system targeting four categories: MFPs, printers, household refrigerators, and household washing machines. Konica Minolta's high environmental performance based on the company's proprietary technology was evaluated, with the result that the monochrome MFP bizhub 164 and other models were granted certification.

### Hong Kong Green Label Scheme

This environmental standard and certification mark is run by the Hong Kong Green Council, a nonprofit organization. To be certified, products are required to meet stringent standards concerning reduction of harmful substances and consideration for environmental impact throughout the product life cycle. In March 2011, Konica Minolta received certification for three color MFP models, becoming the first MFPs to be certified.

## International Energy Star Program

Products that meet certain standards can be registered as Energy Star devices as part of an energy-saving program for OA equipment. Implemented in 1995 through an agreement between the Japanese and US governments, the international program has now expanded with the participation of the Europian Union, Canada, Australia, New Zealand, Taiwan, and other countries.
Almost all of Konica Minolta's MFPs and laser printers meet the Energy Star standards.

### Eco Leaf Environmental Label

Type-III environmental labeling provides information on the environmental impact of a product, based on quantitative measurement of environmental impact through the product's entire life cycle, from raw material procurement to production, sales, usage, disposal, and recycling.

Konica Minolta discloses environmental impact data concerning its office equipment through the Eco Leaf system of Type-III environmental labeling.

Eco Leaf offers a system certification tool whereby a third-party institution certifies that a company has mechanisms for the proper and effective gathering of environmental impact data. Konica Minolta has obtained this certification for its copier and printer businesses.

> Eco Leaf Environmental Label

### EPEAT(Electronic Product Environmental Assessment Tool)

EPEAT has been a comprehensive environmental rating that helps identify greener computers and other electronic equipment since 2006. Imaging equipment was added as a new product category in 2013. The EPEAT is managed by the Green Electronics Council, a non-profit organization based in Portland, Oregon. It ranks products as gold, silver or bronze based on 59 environmental performance criteria considering life cycle of imaging equipment.

Learn more about EPEAT® certification

> Information for EPEAT

- 4.7.2.1 Public disclosure of key environmental aspects
- 4.7.2.2 Public disclosure of supply chain toxics
- 4.3.4.1 Preparation of product end-of-life characterization report
- 4.3.3.1 Notification regarding the identification of both materials and components that have hazardous haracteristics or special handling needs

For criteria except the above, please visit here.

# Management of chemical substances in products

## Green Procurement System

**Implementation of a Green Procurement System compliant with more stringent chemical substance regulations**

Konica Minolta implements green procurement, assessing the chemical constituents of parts and components and giving preference to those with the least environmental impact.

The Group has incorporated the International Electrotechnical Commission's IEC 62474 standard, in order to ease the data-gathering workload on suppliers as much as possible in today's increasingly complex regulatory environment. The Group also periodically holds supplier briefings on trends in environmental laws and regulations and revisions to Konica Minolta standards.

Along with its efforts to ensure compliance with the revised RoHS directive, theThe Group is also currently operating a green procurement system called SIGMA, which has been made compliant with the tightening of regulations on chemical substances in products by expanding its coverage to include candidate SVHCs for authorization and other substances restricted under REACH regulations.[*] The Group is keeping an eye on trends in regulations and alternative technologies and is working on plans to eliminate hazardous materials in order to be sure it avoids risks.

\* REACH regulations: Regulations enacted by the EU in June 2007 concerning the registration, evaluation, authorization and restriction of chemicals, to consolidate existing regulations concerning chemical substances.



Overview of the SIGMA Green Procurement System

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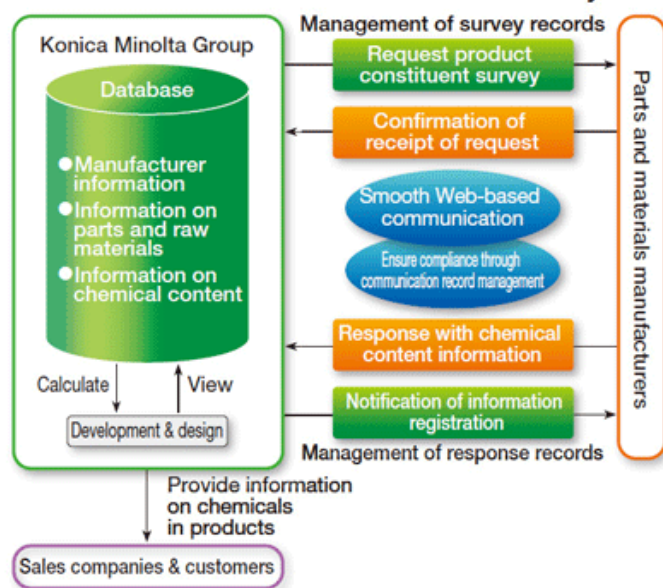
**Main Features**
- Japanese, English and Chinese language support
- Supports two standard chemical substance surveys (JAMP[*1] and JGPSSI[*2]) and independent methods.
- Separates the procedures for checking for prohibited substances and for collection of information on reported substances in products
- Sharing of information from survey and response with business partners
- Databasing of communication records ensures compliance through tracking
- Simplifies the response to changes in regulations and substances subject to control

*1  JAMP: Standards for chemical substance surveys established and implemented by the Joint Article Management Promotion-consortium.

*2  JGPSSI: Standards for chemical substance surveys established and implemented by the Japan Green Procurement Survey Standardization Initiative.