4. Printing-related Products

5. Office-related Products

<table>
<thead>
<tr>
<th>PCR Name</th>
<th>PCR ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Instruments</td>
<td>PA-AS</td>
</tr>
<tr>
<td>Paper Products for stationery</td>
<td>PA-AZ</td>
</tr>
<tr>
<td>File/Binder</td>
<td>PA-AR</td>
</tr>
<tr>
<td>Office Furniture</td>
<td>PA-AK</td>
</tr>
<tr>
<td>Broadly-applicable PCR(T)ery using Consumer Good</td>
<td>PA-BQ</td>
</tr>
<tr>
<td>IT Equipments</td>
<td>PA-CI</td>
</tr>
<tr>
<td>Teleconference Systems using Interactive White Board</td>
<td>PA-BI</td>
</tr>
<tr>
<td>ICT Hosting Service of Cloud Service Provider</td>
<td>PA-AX</td>
</tr>
<tr>
<td>Application Service</td>
<td>PA-CT</td>
</tr>
</tbody>
</table>

Note:
- The PCR codes shown do not include the edition numbers.
- One of the products which were given verification of their carbon footprints of products (CTP), these representatives from each category (4) have been selected and introduced, focusing on products that were displayed in the 2011 Eco-Products Exhibition. Regarding all the products, please refer to the list of products authorized to use the CTP when lost or broken.
- The calculation coverage for carbon footprint has partly changed in FY2010 from that of FY2009. The Sales Process in the Transport/Sale which is FY2009 was eliminated in FY2010 as a tentative measure during the pilot period only.
- With regard to the lower section "Percentage of CO2 emissions" for each product, an entry of '0%' in that section for a final product indicates that no CO2 is ventured during the said process of said product. An entry of '-' for intermediate goods indicates that the said process is not included in the calculation coverage.
5. Office-related Products

- **Shachihata**
  - **Company name**: Shachihata Inc
  - **Product name**: Permanent Marker “Kawakimapen”
  - **PCR Name & ID**: PA-AS-02
  - **Product Outline** (Verified in FY2011)
    - Ink (oil-based dyestuff ink), body (recycled PP), cap (recycled PP), and plug (recycled PP), holder (PP), packing (polyethylene resin), pen nib (polyester fiber), filter (polyester fiber)
    - Product weight: 20g
  - **Percentage of CO₂ emissions**
    - Process ① Acquisition of raw materials: 37%
    - Process ② Production: 17%
    - Process ③ Transport: 17%
    - Process ④ Use/maintenance: 0%
    - Process ⑤ Disposal/recycle: 29%
    - Total amount (g CO₂/ product): 153g
  - **Recycled materials are used.**
  - **The pens can be reused with ink refills and by changing the pen nib.**

- **Maruman Corporation**
  - **Company name**: Maruman Corporation
  - **Product name**: ecospiral notebook (B5size)
  - **PCR Name & ID**: PA-AZ-03
  - **Product Outline** (Verified in FY2011)
    - L257mm x W182mm
    - Weight: 130g (calculated with one notebook)
    - Number of sheets: 30sheets
  - **Percentage of CO₂ emissions**
    - Process ① Acquisition of raw materials: 66%
    - Process ② Production: 11%
    - Process ③ Transport: 15%
    - Process ④ Use/maintenance: 0%
    - Process ⑤ Disposal/recycle: 8%
    - Total amount (g CO₂/ product): 25.0g
  - **These notebooks are made at our Miyazaki plant which utilizes photovoltaic power generation.**

- **IMURA ENVELOPE CO., INC.**
  - **Company name**: IMURA ENVELOPE CO., INC.
  - **Product name**: Pocket Envelopes with Window Envelopes
  - **PCR Name & ID**: PA-AZ-02
  - **Product Outline** (Verified in FY2011)
    - Size: 120mm x 235mm
    - Thickness of paper: 68g/m²
    - Number in lot: 5,000 envelopes
    - Work methods: manufacture of envelopes from roll paper, printing front and back one colour.
    - Flap glue: Adhesive glue
  - **Percentage of CO₂ emissions**
    - Process ① Acquisition of raw materials: 65%
    - Process ② Production: 3%
    - Process ③ Transport: 20%
    - Process ④ Use/maintenance: 0%
    - Process ⑤ Disposal/recycle: 12%
    - Total amount (g CO₂/ product): 43.7g
  - **These envelopes have the following special features:**
    - **Easy-to-use pastel colours**
    - **As the material used makes it difficult to see what is inside the envelope, printing on the inside of the envelope is not necessary. (Lower the load on the environment at the printing stage.)**
    - **The material used for the windows is 50% recycled.**

- **IMURA ENVELOPE CO., INC.**
  - **Company name**: IMURA ENVELOPE CO., INC.
  - **Product name**: Green Tea Leaf Envelopes
  - **PCR Name & ID**: PA-AZ-02
  - **Product Outline** (Verified in FY2011)
    - Size: 240mm x 332mm
    - Thickness of paper: 81.4g/m²
    - Number in lot: 3,000 envelopes
    - Work methods: manufacture of envelopes from flat paper, printing front and back 
    - Flap glue: no glue
  - **Percentage of CO₂ emissions**
    - Process ① Acquisition of raw materials: 65%
    - Process ② Production: 3%
    - Process ③ Transport: 20%
    - Process ④ Use/maintenance: 0%
    - Process ⑤ Disposal/recycle: 12%
    - Total amount (g CO₂/ product): 43.7g
  - **These envelopes have the following special features:**
    - **One hundred envelopes contain used tea leaves, the inside of the envelopes cannot be easily seen, and printing on the inside of the envelope is not necessary. (Lower the load on the environment at the printing stage.)**
    - **Paper used in these envelopes is 20% thinner than that used in ordinary envelopes of the same size.**
5. Office-related Products

<table>
<thead>
<tr>
<th>Company name</th>
<th>Kokuyo S&amp;T Co., Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>Tube File [ECOTWIN-R] (using wood from forest-thinning)</td>
</tr>
<tr>
<td>PCR Name &amp; ID</td>
<td>PA-AR-01</td>
</tr>
<tr>
<td>Product Outline</td>
<td>A4 vertical, file thickness 50mm, 2 holes, color - blue</td>
</tr>
</tbody>
</table>

- The cover uses wood from forest-thinning in its core.
- The file clip can easily be separated from the cover.

Company name: Kokuyo S&T Co., Ltd.
Product name: Tube File [ECOTWIN-R] (using wood from forest-thinning)
PCR Name & ID: PA-AR-01
Product Outline: A4 vertical, file thickness 50mm, 2 holes, color - blue

**Process ① Acquisition of raw materials ② Production ③ Transport/sales ④ Use/maintenance ⑤ Disposal/recycle Total amount (g-CO₂/product)**

- Acquire processors 58%
- Production 8%
- Transport/sales 26%
- Use/maintenance 0%
- Disposal/recycle 7%
- Total amount 2,030g

KOKUYO FURNITURE Co.Ltd.

<table>
<thead>
<tr>
<th>Company name</th>
<th>KOKUYO FURNITURE Co.Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>FLEXCEL</td>
</tr>
<tr>
<td>PCR Name &amp; ID</td>
<td>PA-AK-01</td>
</tr>
<tr>
<td>Product Outline</td>
<td>Size: W900mm×H1135mm Product weight: 18 kg</td>
</tr>
</tbody>
</table>

- Emissions from packaging materials are extremely low as a cutting back of packaging material is being enforced.
- There are no GHG emissions at the stages of usage and maintenance.

Company name: KOKUYO FURNITURE Co., Ltd.
Product name: FLEXCEL
PCR Name & ID: PA-AK-01
Product Outline: Size: W900mm×H1135mm Product weight: 18 kg

**Process ① Acquisition of raw materials ② Production ③ Transport/sales ④ Use/maintenance ⑤ Disposal/recycle Total amount (g-CO₂/product)**

- Acquire processors 67%
- Production 16%
- Transport/sales 7%
- Use/maintenance 0%
- Disposal/recycle 10%
- Total amount 46kg

SHIMIZU PRINTING INC.

<table>
<thead>
<tr>
<th>Company name</th>
<th>SHIMIZU PRINTING INC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>Eco products for 2010, clear file holder manufactured from polypropylene (PP)</td>
</tr>
<tr>
<td>PCR Name &amp; ID</td>
<td>PA-AR-02</td>
</tr>
<tr>
<td>Product Outline</td>
<td>Clear file holder for documents printed on PP using 4 colors (210mm×310mm, 27.1g/holder)</td>
</tr>
</tbody>
</table>

- Emissions from packaging materials are extremely low as a cutting back of packaging material is being enforced.
- There are no GHG emissions at the stages of usage and maintenance.

Company name: SHIMIZU PRINTING INC.
Product name: Eco products for 2010, clear file holder manufactured from polypropylene (PP)
PCR Name & ID: PA-AR-02
Product Outline: Clear file holder for documents printed on PP using 4 colors (210mm×310mm, 27.1g/holder)

**Process ① Acquisition of raw materials ② Production ③ Transport/sales ④ Use/maintenance ⑤ Disposal/recycle Total amount (g-CO₂/product)**

- Acquire processors 34%
- Production 43%
- Transport/sales 1%
- Use/maintenance 0%
- Disposal/recycle 22%
- Total amount 223g

KOKUYO FURNITURE Co., Ltd.

<table>
<thead>
<tr>
<th>Company name</th>
<th>KOKUYO FURNITURE Co., Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>FLEXCEL</td>
</tr>
<tr>
<td>PCR Name &amp; ID</td>
<td>PA-AK-01</td>
</tr>
<tr>
<td>Product Outline</td>
<td>Size: H1135mm Product weight: 2kg</td>
</tr>
</tbody>
</table>

- Emissions from packaging materials are extremely low as a cutting back of packaging material is being enforced.
- There are no GHG emissions at the stages of usage and maintenance.

Company name: KOKUYO FURNITURE Co., Ltd.
Product name: FLEXCEL
PCR Name & ID: PA-AK-01
Product Outline: Size: H1135mm Product weight: 2kg

**Process ① Acquisition of raw materials ② Production ③ Transport/sales ④ Use/maintenance ⑤ Disposal/recycle Total amount (g-CO₂/product)**

- Acquire processors 94%
- Production 0.04%
- Transport/sales 2%
- Use/maintenance 0%
- Disposal/recycle 4%
- Total amount 23kg

N.B. Only the corner post shown in the photo is the said product.

Company name: KOKUYO FURNITURE Co., Ltd.
Product name: FLEXCEL
PCR Name & ID: PA-AK-01
Product Outline: Size: H1135mm Product weight: 2kg
5. Office-related Products

**KOKUYO FURNITURE Co.,LTD.**

**Product Name:** Storage system EDIA BWU-K69SAW / BWU-K69F1

**Product Outline:**
- Size: W900mm×D450mm×H1185mm (excluding the base)
- Product weight: 36kg (excluding the base/including packaging materials)

**Process Breakdown:**
- Acquisition of raw materials: 69%
- Production: 23%
- Transport: 6%
- Use/maintenance: 0%
- Disposal/recycle: 2%

**Total CO₂ emissions:** 122kg

**Company Name:** KOKUYO FURNITURE Co.,LTD.

**Product Name:** Storage system EDIA BWU-K69SAW / BWU-K69F1

**Product Outline:**
- Size: W900mm×D450mm×H1185mm (excluding the base)
- Product weight: 36kg (excluding the base/including packaging materials)

**Process Breakdown:**
- Acquisition of raw materials: 69%
- Production: 23%
- Transport: 6%
- Use/maintenance: 0%
- Disposal/recycle: 2%

**Total CO₂ emissions:** 122kg

---

**Okamura Corporation**

**Product Name:** Scholar light chair (Size No. 5)

**Process Breakdown:**
- Acquisition of raw materials: 62%
- Production: 11%
- Transport: 11%
- Use/maintenance: 0%
- Disposal/recycle: 11%

**Total CO₂ emissions:** 23.6kg

**Company Name:** Okamura Corporation

**Product Name:** Scholar light chair (Size No. 5)

**Process Breakdown:**
- Acquisition of raw materials: 68%
- Production: 17%
- Transport: 5%
- Use/maintenance: 0%
- Disposal/recycle: 10%

**Total CO₂ emissions:** 13.2kg

---

**ITOKI CORPORATION**

**Product Name:** CZ desk CZN-127HA-W7W7

**Process Breakdown:**
- Acquisition of raw materials: 61%
- Production: 21%
- Transport: 11%
- Use/maintenance: 0%
- Disposal/recycle: 7%

**Total CO₂ emissions:** 95.4kg

**Company Name:** ITOKI CORPORATION

**Product Name:** CZ desk CZN-127HA-W7W7

**Process Breakdown:**
- Acquisition of raw materials: 61%
- Production: 21%
- Transport: 11%
- Use/maintenance: 0%
- Disposal/recycle: 7%

**Total CO₂ emissions:** 95.4kg
5. Office-related Products

**Company name**: ITOKI CORPORATION

**Product name**: Epilo chair

**PCR Name & ID**: Office Furniture PA-AK-02

**Product Outline** (Verified in FY2010)

High back chair with adjustable arm

Weight: 18.9 kg (includes complete set of attachments and packaging)

![Image of Epilo chair]

**CO₂ Emissions**

- 60% of total resin materials are recycled.
- The number of parts has been reduced and only three screws are used in assembly. Therefore, it is easy to recycle.

**Table of CO₂ Emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56%</td>
<td>13%</td>
<td>7%</td>
<td>0%</td>
<td>24%</td>
<td>98.5kg</td>
</tr>
</tbody>
</table>

**Note**: Due to the development of the high performance ASIC (Application Specific Integrated Circuit), the amount of electricity used for processing capacities is reduced.

---

**Company name**: RICOH COMPANY, LTD.

**Product name**: Multifunction Color copier system imagio

**PCR Name & ID**: PA-BQ-01

**Product Outline** (Verified in FY2011)

Equipped with copy, printer, facsimile, scanner, W-Net FAX and IP-FAX functions.

Continuous printing speed (A4 horizontal): colour – 50 pages/minute; black-and-white – 50 pages/minute

**CO₂ Emissions**

- By using Ricoh’s unique IH roller fusing system and low melting point toners, compared to its predecessor (imagio MP C4500 SPF), the amount of electricity used has been reduced by approximately 40% (TIEC).
- N.B. This number is calculated using methods of measurements as prescribed by the International Energy Star Program.

**Table of CO₂ Emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>42%</td>
<td>1%</td>
<td>2%</td>
<td>47%</td>
<td>8%</td>
<td>1620kg</td>
</tr>
</tbody>
</table>

**Use of highly-efficient power supply**

By improving the conversion efficiency, the amount of power loss is reduced and by using electricity efficiently, energy consumption can be kept low.

---

**Company name**: Hitachi, Ltd.

**Product name**: AX2530S-24T (Compact Gigabit Layer 2 Switches)

**PCR Name & ID**: PA-CI-01

**Product Outline** (Verified in FY2011)

A gigabit L2 ethernet switch in a compact body, aiming for even higher performance.

- Number of I/O slots: 2
- Composite theoretical performance: 140GTOPS
- Maximum throughput: 28Gbit/s
- PoE functions: none
- Line speed and number of ports: 1Gbit/s×28
- SNMP function: yes
- IP filtering function: yes
- Management functions: SNMP function

**CO₂ Emissions**

- Due to the development of the high performance ASIC (Application Specific Integrated Circuit), the amount of electricity used for processing capacities is reduced.

**Table of CO₂ Emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.03%</td>
<td>0.05%</td>
<td>96%</td>
<td>0.03%</td>
<td>1.03%</td>
<td>1490kg</td>
</tr>
</tbody>
</table>

**ITOKI CORPORATION**

The photo shows the imagio MP C5001 SPF with the imagio paper feed unit PB 3100 attached.

**Hitachi, Ltd.**

A gigabit L2 ethernet switch in a compact body, aiming for even higher performance and reliability.

- Maximum throughput: 28Gbit/s • Supposed number of years used: 10
- PoE functions: none • Line speed and number of ports: 1Gbit/s×28
- Management functions: SNMP function • IP filtering function: yes

**HITACHI CORPORATION**

The number of parts has been reduced and only three screws are used in assembly. Therefore, it is easy to recycle.

**HITACHI CORPORATION**

60% of total resin materials are recycled.

**HITACHI CORPORATION**

The number of parts has been reduced and only three screws are used in assembly. Therefore, it is easy to recycle.
5. Office-related Products

HITACHI
Inspire the Next

Company name: Hitachi, Ltd
Product name: Hitachi Adaptable Modular Storage 2500
PCR Name & ID: PA-CI-01

- Storage capacity: 442.6TB
- Supposed number of years used: 5
- Applications: For offices
- Disc speed: 7.2krpm
- Disc size: units, 3.5 inch, 480 units

**Percentage of CO₂ emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquire raw</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Dispose/recycle</th>
<th>Total amount (t-CO₂/ product)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5%</td>
<td>1%</td>
<td>0.1%</td>
<td>94%</td>
<td>0.07%</td>
<td>351t</td>
</tr>
</tbody>
</table>

A highly-efficient storage medium is used.

**Process**

① Acquisition of raw materials
② Production
③ Transport
④ Use/maintenance
⑤ Disposal/recycle

Hitachi Solutions, Ltd.

Company name: Hitachi Solutions, Ltd
Product name: The Interactive Whiteboard Teleconferencing System
PCR Name & ID: PA-BI-02

StarBoard is an electronic whiteboard that displays computer screens upon which it is possible to manipulate PCs and, it is also possible to write in both directions on multiple boards. When combined with TV videoconferencing systems, remote meetings can be held online sharing voices, images and meeting material.

**Percentage of CO₂ emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquire raw</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Dispose/recycle</th>
<th>Total amount (t-CO₂/ product)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.7%</td>
<td>0.2%</td>
<td>0%</td>
<td>32%</td>
<td>1%</td>
<td>4.750kg</td>
</tr>
</tbody>
</table>

In addition to lowering the burden of the raw materials, in order to lower the usage time burden, the usability of the software was improved and thus lowered the burden overall.

**Process**

① Acquisition of raw materials
② Production
③ Transport
④ Use/maintenance
⑤ Disposal/recycle

UNISYS

Company name: Nihon Unisys, Ltd
Product name: U-Cloud® IaaS
PCR Name & ID: PA-AX-02

- Server: corresponding to Intel Xeon 2GHz SingleCore + Memory 1GB (100MHz)
- Storage: 50GB
- Internal network, internet connection speed: 100Mbps best effort type shared lines + one global IP address

**Percentage of CO₂ emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquire raw</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Dispose/recycle</th>
<th>Total amount (kg-CO₂/ product)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0.005%</td>
<td>99%</td>
<td>0.0005%</td>
<td>3.42t</td>
</tr>
</tbody>
</table>

Initiative to improve energy efficiency in provision of services and maintenance

- Use of energy-saving ICT equipment
- Dynamic layout of supposed server
- High temperature setting of the facilities

**Process**

① Acquisition of raw materials
② Production
③ Transport
④ Use/maintenance
⑤ Disposal/recycle

Company name: Nihon Unisys, Ltd
Product name: LearningCast®
PCR Name & ID: PA-CT-01

Provision of services for SaaS type educational platforms for corporations
Basic Plan 10 user ID

**Percentage of CO₂ emissions**

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquire raw</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Dispose/recycle</th>
<th>Total amount (kg-CO₂/ product)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2%</td>
<td>6%</td>
<td>0.001%</td>
<td>47%</td>
<td>45%</td>
<td>80.5kg</td>
</tr>
</tbody>
</table>

Use of ICT hosting services as a service provision base for operators

As the value is high for consumers at the usage stage, the impact of consumer efforts is major.

**Process**

① Acquire raw (operators)
② Production (processors)
③ Transport (processors)
④ Use (consumers)
⑤ Disposal/recycle (consumers)
⑥ Total amount (kg-CO₂/ product)
5. Office-related Products


<table>
<thead>
<tr>
<th>PCR Name</th>
<th>PCR ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadbed material made from inorganic sludge</td>
<td>PA-AY</td>
</tr>
<tr>
<td>Rubber Chip Products</td>
<td>PA-BZ</td>
</tr>
<tr>
<td>Wood-plastic Composite</td>
<td>PA-CB</td>
</tr>
<tr>
<td>Wood, Wood Materials</td>
<td>PA-CC</td>
</tr>
<tr>
<td>Wood Products</td>
<td>PA-CD</td>
</tr>
<tr>
<td>Insulation material for construction</td>
<td>PA-CK</td>
</tr>
</tbody>
</table>

**Note:**
- One of the products which were given verification of their carbon footprints of products (GTP), those representative from each category (but) have been selected and introduced, focusing on products that are displayed in the 2011 Eco-Products Exhibition. Regarding all the products, please refer to the list of products authorized to use the GTP label at link.
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- With regard to the lower section “Percentage of CO2 emissions” for each product, an entry of ‘0%’ in that section for a final product indicates that no CO2 is verified during the said process of that product. An entry of ‘<’ for intermediate products indicates that the said process is not included in the calculation coverage.