TOPPAN

CSR Report 2013: Detailed Data

Editorial Policy for this CSR Report 2013: Detailed Data

This PDF discloses detailed data not presented in the Toppan CSR Report 2013.

The CSR report is edited in line with the seven core subjects set under ISO 26000, a guidance standard on social responsibility. In this *Detailed Data*, Toppan also uses the core subjects as its main titles.

Scope and Boundary of this PDF

The data on Labor Practices covers Toppan Printing Co., Ltd. only. The scope of the environmental performance data is presented in the table below, which shows indicators assured by an independent assurance provider.

Reliability

KPMG AZSA Sustainability Co., Ltd. provides independent assurance for this PDF, along with the *Toppan CSR Report 2013*. The following presents the environmental performance indicators in this *Detailed Data* assured by the independent assurance provider.

Environmental Performance Indicators Assured by an Independent Assurance Provider and Scope of the Environmental Performance Data

1) Toppan Printing Co., Ltd. ("the Company")

(2) 20 domestic manufacturing subsidiaries within the scope of the Company's environmental targets

③ 20 domestic subsidiaries outside the scope of the Company's environmental targets

(4) 26 overseas subsidiaries

Pages		Category	Data	Indicator Assured by an Independent Assurance Provider	Companies	Scope	
			INPUT/OUTPUT Data by Business Field for Domestic Sites (within the scope of the environmental targets)	1	21	1, 2	
PP. 2–3		pan's Environmental	INPUT/OUTPUT Data by Business Field for Domestic Sites (outside the scope of the environmental targets)	1	20	3	
	Burden		INPUT/OUTPUT Data by Business Field for Overseas Sites (outside the scope of the environmental targets)	1	26	4	
P. 4	1		Environmental Impact and Environmental Efficiency	_	21	1, 2	
			ISO 14001 Certificates Obtained at Toppan Printing Co., Ltd. and Domestic Manufacturing Subsidiaries (within the scope of the environmental targets)	_	21	1), 2	
P. 4	Env	ironmental Management	ISO 14001 Certificates Obtained at Domestic Subsidiaries (outside the scope of the environmental targets)	_	20	3	
		vities	ISO 14001 Certificates Obtained at Overseas Subsidiaries (outside the scope of the environmental targets)	_	26	4	
P. 5	-		Fiscal 2012 Results of Environmental Education	1	21	1, 2	
P. 0			Numbers of Internal Environmental Audits and Issues in Need of Improvement	1	67	1-4	
			Mitigation of Global Warming through the Development of Energy-saving Measures	1	21	1, 2	
			Energy Consumption	1	21	1,2	
			Ratios by Energy Type (in terms of caloric value)	1	21	1,2	
P. 5			Electricity Consumption	1	21	1,2	
		Mitigating Global Warming	Natural Gas Consumption	1	21	1,2	
	m	warming	Kerosene Consumption	1	21	1,2	
	Eco-protection Activities	co-pro		Fuel Efficiency of Vehicles Owned by Toppan Logistics	1	1	Toppan Logistics Co., Ltd.
	tec		Ratios of Greenhouse Gas Emissions by Type (in tons of CO ₂ equivalent)	1	67	1-4	
	tion		Ratios of Greenhouse Gas Emissions by Source (in tons of CO ₂ equivalent)	1	67	1-4	
P. 6	Ac		Promotion of Waste Reduction and Recycling	_	21	1,2	
	tivit	Building a Recycling-	Waste Discharge Per Unit of Production Value	1	21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 1 Toppan Logistics Co., Ltd. 67 ()-(4) 67 ()-(4) 67 ()-(2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2) 21 (), (2)		
	es	oriented Society	Fiscal 2012 Results of Waste Discharge and Recycling	1	21	1,2	
P. 7			Zero-emission Sites (TZERO-12)	_	21	1,2	
	1	Preventing Pollution /	NOx and SOx Emissions	1	21	1,2	
P. 8		Controlling Chemical Substances	PRTR Results for Fiscal 2012	1	21	1), 2	
P. 8		Promoting the Conservation of Biodiversity	ECO-GREEN Purchasing*1	1	21	①, ② ①, ② ①, ② ①, ② ①, ② ①, ② ①, ② ①, ② ①, ③ ①-④ ①, ② ①, ② ①, ③ ①, ③ ①, ③ ①, ② ①, ③ ①, ③ ①, ③ ①, ③ ①, ③ ①, ③ ①, ③ ①, ③ ①, ③	
P. 9	Eco-creativity Activities List of Environmentally Friendly Products*1		_	21	_		
	F -	in a second is a	Capital Investment for Environmental Conservation	1	60	_	
	Env	ironmental Accounting	Environmental Conservation Benefit	1	67	④ ①, ② ①, ② ③ ④ ①, ② ③ ④ ①, ② ①, ③ ①, ③ ①, ② ①, ③ ①, ③ ①, ② ①, ② ①, ② ①, ③ ⑦, ③ ⑦, ③ ⑦, ③ ⑦, ③ ①, ② ①, ② ①, ② ①, ③ ①, ② ①, ③	
P. 10		_	Green Procurement Standards for Paper and Levels of Fulfillment	1	18 suppliers	_	
		en Procurement and en Purchasing	Green Procurement Standards for Ink and Levels of Fulfillment	1	4 suppliers	-	
			In-house Green Purchasing Standards and Levels of Fulfillment*1	1	21	1,2	
						۰	

*1 Covers operational site data that make up significant portions of the totals.

Contact Information

CSR Promotion Department, Legal Affairs Division, Toppan Printing Co., Ltd. (Tokyo, Japan) Email: csr@toppan.co.jp

Labor Practices

Results in Human Asset Development

	Funds Spent on Training,	Usage Rates of Topp Training Centers* ²	
	etc. per Employee*1	Kawaguchi	Yugawara
Fiscal 2010	35,471 yen	54.8%	_
Fiscal 2011	66,787 yen	55.2%	43.4%
Fiscal 2012	64,482 yen	49.3%	32.6%

*1 Toppan established a new training center in Yugawara, Kanagawa Prefecture in fiscal 2011 and renovated its existing training center in Kawaguchi, Saitama Prefecture in the same year.

*2 Number of days the training centers were used in a year (including use by subsidiaries and affiliated companies).

Retention Rates for Recruits (Percentage of fiscal 2010 hires still working at Toppan)

	Male	Female
Hired on April 1, 2010	113	50
Still with Toppan as of April 1, 2013	106	48
Retention rate	94%	96%
Average for males and females	95	5%
Percentage who leave the Company before working three years	5%	

The Environment

Toppan's Environmental Burden*3

INPUT/OUTPUT Data by Business Field for Domestic Sites (within the scope of the environmental targets)

	Category	Chief Component	Information & Networks	Living Environment	Electronics	Non-production Sites	Total
		Total input (tons)	798,640	737,582	34,486	0	1,570,708
		Papers (tons)	778,248	524,384	239	0	1,302,871
		Plastic (tons)	3,091	146,172	3,263	0	Iotal 0 1,570,708 0 1,302,871 0 152,526 0 8,196 0 75,146 0 31,969 556 15,475 06 3,912 550 11,563 991 13,215 11 1,160 370 1,469 0 10,574 10 12 0 5,979 3 6,689 308 678,830 462 233,807 446 445,023 0 611 288 117,829 0 24,993 0 24,993 0 24,993 0 24,993 0 24,993 0 24,993 0 24,993 0 9,781 378 2,053 0 39,433 0 11,317
	Material	Glass (tons)	6	63	8,127	0	8,196
		Ink, solvent (tons)	15,367	57,028	2,751	0	75,146
		Other (tons)	1,928	9,935	20,106	0	31,969
		Total energy consumption (1,000 GJ)	3,905	5,389	5,525	656	15,475
z	Energy	Primary energy [fuel] (1,000 GJ)	1,416	1,655	735	106	3,912
INPUT		Secondary energy [electricity, steam] (1,000 GJ)	2,489	3,734	4,790	550	11,563
		Water consumption (1,000 m ³)	975	1,916	9,933	391	Iotal 0 1,570,708 0 1,52,526 0 8,196 0 75,146 0 31,969 5 15,475 5 3,912 0 11,563 1 13,215 1 1,469 0 10,574 0 10,574 0 10,574 0 10,574 0 10,574 0 10,574 0 10,574 0 122 0 5,979 3 6,689 8 678,830 2 233,807 6 445,023 0 61 8 117,829 0 24,993 0 24,993 0 24,993 0 4,497 8 11,834 0 9,781 3 2,053 0 </td
		Industrial water (1,000 m ³)	355	508	286	11	1,160
	Watar	Municipal water (1,000 m ³)	384	661	54	370	1,469
	Water	Groundwater (1,000 m ³)	234	747	9,593	0	10,574
		Rainwater used (1,000 m ³)	2	0	0	10	12
		Use of water circulated on premises (1,000 m ³)	6	22	5,951	0	1,570,708 1,302,871 152,526 8,196 75,146 31,969 15,475 3,912 11,563 13,215 1,160 1,469 10,574 12 5,979 6,689 678,830 233,807 445,023 61 117,829 24,993 18 299 4,497 11,834 9,781 2,063 39,433 11,317 225,408 1,753 0,6
	Chemical substances	Handling of chemical substances designated under the PRTR law (tons)	998	2,540	3,148	3	6,689
		CO ₂ emission (t-CO ₂)	168,603	259,047	224,572	26,608	678,830
		CO ₂ emission [fuel] (t-CO ₂)	72,894	115,057	40,394	5,462	233,807
		CO2 emission [electricity, steam] (t-CO2)	95,709	143,990	184,178	21,146	6 3,912 0 11,563 1 13,215 1 1,160 0 1,469 0 10,574 0 10,574 0 12 0 5,979 3 6,689 8 678,830 2 233,807 6 445,023 0 61 8 117,829 0 24,993 0 18 0 299 0 4,497 8 11,834 0 9,781 8 2,053
		Emission of ozone-depleting substances (ODP-kg)	0	61	0	0	61
	Atmosphere	NOx emission (kg)	14,900	76,726	24,915	1,288	1,570,708 1,302,871 152,526 8,196 75,146 31,969 15,475 3,912 11,563 13,215 1,160 1,469 10,574 23,807 445,023 61 117,829 24,993 18 299 4,497 11,834 9,781 2,053 39,433 11,317 25,408 1,753 0,6 265,075 263,908
		SOx emission (kg)	16	8,517	16,460	0	24,993
		Emission of dioxins (mg-TEQ)	4	14	0	Sites 486 0 1,570, 239 0 1,302, 263 0 152, 127 0 8, 751 0 75, 106 0 31, 525 666 15, 735 106 3, 790 550 111, 933 391 13, 286 11 1, 54 370 1, 593 0 10, 951 0 55, 148 3 6, 572 26,608 678, 394 5,462 233, 178 21,146 445, 0 0 0 915 1,288 117, 460 0 24, 0 0 24, 0 0 39, 79 0 4, 406 378	18
		Release of chemical substances designated under the PRTR law (tons)	60	233	6		299
~		VOC emission into the atmosphere (tons)*4	631	3,787	79	0	4,497
Ę		Total effluent discharge (1,000 m ³)	627	1,423	9,406	378	Initial 1,570,708 1,302,871 152,526 8,196 75,146 31,969 152,526 152,526 152,526 152,526 153,916 11,563 13,215 11,563 13,215 11,160 1,469 10,574 10,574 110,574 110,574 110,574 112 5,979 6,689 6,689 6,689 6,678,830 233,807 6,445,023 0 117,829 24,993 18 2999 4,497 11,834 9,781 2,053 39,433 11,753 1,753 1,753 1,753 1,753 1,66,075 263
OUTPUT		Into public water system (1,000 m ³)	12	919	8,850	0	9,781
		Into sewage system (1,000 m ³)*5	615	504	556	378	2,053
	Water and soil	BOD (kg)	17	2,138	37,278	0	39,433
	environments	COD (kg)	0	1,847	9,470	0	Sites Jotal 0 1,570,708 0 1,302,871 0 152,526 0 8,196 0 75,146 0 31,969 656 15,475 106 3,912 550 11,563 391 13,215 11 1,160 370 1,469 0 10,574 10 12 0 10,574 11 1,160 370 1,469 0 10,574 10 12 0 5,979 3 6,689 26,608 678,830 5,462 233,807 21,146 445,023 0 611 1,288 117,829 0 24,993 0 24,993 0 24,993 0 2,953 0 9,781 378
		Nitrogen discharge (kg)	0	8,204	17,204	391 1 111 370 0 1 10 1 0 1 10 1 0 1 10 1 0 1 10 2 10 2 11 10 10 2 11 2 11 2 11 2 11 2 11 2 11 2 11 2 11 2 11 2 11 2 11 2 11 2 11 3 11 3 11 3 11 3 11 3 11 3 11 3 11 3 11 3 11 3	25,408
		Phosphorous discharge (kg)	0	864	889	0	1,753
		Release of chemical substances designated under the PRTR law (tons)	0.0	0.1	0.5	0 656 106 550 391 11 370 0 10 0 10 0 10 0 10 0 10 0 10 0 1,288 0 1,288 0 0 3778 0 3778 0	0.6
		Total discharge (tons)	133,660	100,509	27,392	3,514	265,075
	Waste	Recycled (tons)	133,449	99,915	27,368	3 3 2 26,608 4 5,462 3 21,146 0 0 5 1,288 0 0 5 0 0 0 5 0 6 0 7 0 6 0 7 0 8 378 3 0 0 0 4 0 0 0 5 0.0 2 3,514 3 3,176	263,908
		Final landfill waste disposal (tons)	41	249	9	53	352

*3 Energy consumption associated with fuel consumption is calculated using the conversion factor specified in the year 2000 amendment of the Act on the Rational Use of Energy of Japan. The primary energy input associated with electricity consumption is calculated uniformly as 0.00983 GJ/kWh. CO₂ emissions are calculated by the method specified in the Guidelines for Calculating Greenhouse Gas Emissions from Businesses (2003) from the Ministry of the Environment of Japan. CO₂ emissions are calculated uniformly as 0.378 t-CO₂/MWh. CO₂ emissions associated with electricity consumption are calculated uniformly as 0.378 t-CO₂/MWh. CO₂ emissions associated with electricity consumption at overseas sites, however, are calculated based on the CO₂ emission conversion factors (applied to specific countries for 2000) published by the Greenhouse Gas Protocol Initiative. CO₂ emissions (fuel) include CO₂ emissions associated with experiment of how and waste materials of value sold or transformed as reconversed (both approximation incinerators). The total discharge of waste includes industrial waste of no value and waste materials of value sold or transformed as reconversed (both approximated in provide) when the value are arbitricity.

of value sold or transferred as resources (both generated in association with business activities). *4 Emissions into the atmosphere are calculated in conformance with the standards established by the Japan Federation of Printing Industries (JFPI) and the Japan Electronics and Information Technology Industries Association (JEITA).

*5 Includes 30,705 m³ of spring water from the premises of the Sales Building.

	Category	Chief Component	Information & Networks	Living Environment	Electronics	Non-production Sites	Total
		Total input (tons)	530,022	34,509	948	0	565,479
		Papers (tons)	516,975	6,646	12	0	523,633
	Matavial	Plastic (tons)	3,053	26,654	101	0	29,808
	Material	Glass (tons)	0	1	197	0	198
		Ink, solvent (tons)	6,615	996	28	0	7,639
		Other (tons)	3,380	212	610	0	4,202
		Total energy consumption (1,000 GJ)	2,276	708	499	0	3,483
Ī	Energy	Primary energy [fuel] (1,000 GJ)	216	81	61	0	358
INPUT		Secondary energy [electricity, steam] (1,000 GJ)	2,060	627	438	0	3,125
-		Water consumption (1,000 m ³)	1,302	79	845	30	2,256
		Industrial water (1,000 m ³)	37	0	0	0	37
	Mator	Municipal water (1,000 m ³)	236	79	16	30	361
	Water	Groundwater (1,000 m ³)	1,018	0	829	0	1,847
		Rainwater used (1,000 m ³)	11	0	0	0	0 37 30 361 0 1,847 0 11 0 19 0 99 0 140,615 0 20,453 0 120,162 0 0
		Use of water circulated on premises (1,000 m ³)	0	0	19	0	19
	Chemical substances	Handling of chemical substances designated under the PRTR law (tons)	11	48	40	0	99
		CO ₂ emission (t-CO ₂)	91,195	28,346	21,074	0	140,615
		CO ₂ emission [fuel] (t-CO ₂)	11,984	4,246	4,223	0	20,453
		CO ₂ emission [electricity, steam] (t-CO ₂)	79,211	24,100	16,851	0	120,162
		Emission of ozone-depleting substances (ODP-kg)	0	0	0	0	0
	Atmosphere	NOx emission (kg)	9,539	471	2,573	0	12,583
	, anophoro	SOx emission (kg)	25	0	2,003	0	2,028
		Emission of dioxins (mg-TEQ)	0	0	0	0	0
		Release of chemical substances designated under the PRTR law (tons)	0	1	0	0	1
~		VOC emission into the atmosphere (tons)	450	803	2	0	1,255
OUTPUT		Total effluent discharge (1,000 m ³)	860	54	756	26	1,696
P		Into public water system (1,000 m ³)	672	35	754	4	1,465
-		Into sewage system (1,000 m ³)	188	19	2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	231
	Water and soil	BOD (kg)	532	202	2,111	0	2,845
	environments	COD (kg)	1,153	0	0	54	1,207
		Nitrogen discharge (kg)	420	0	0	0	420
		Phosphorous discharge (kg)	46	0	0	0	46
		Release of chemical substances designated under the PRTR law (tons)	0	0	1	0	1
		Total discharge (tons)	63,473	11,345	798	1,123	76,739
	Waste	Recycled (tons)	63,020	10,822	769	1,115	75,726

INPUT/OUTPUT Data by Business Field for Domestic Sites (outside the scope of the environmental targets)

INPUT/OUTPUT Data by Business Field for Overseas Sites (outside the scope of the environmental targets)

Final landfill waste disposal (tons)

Category	Chief Component	Information & Networks	Living Environment	Electronics	Non-production Sites	Total
	Total energy consumption (1,000 GJ)	1,450	602	2,894	-	4,946
Energy	Primary energy [fuel] (1,000 GJ)	191	268	111	Sites 10te - - <	570
=	Secondary energy [electricity, steam] (1,000 GJ)	1,259	334	2,783	_	4,376
	Water consumption (1,000 m ³)	1,420	93	1,846	-	3,359
-⊣ Water	Municipal water (1,000 m ³)	1,397	91	1,791	-	3,279
water	Groundwater (1,000 m ³)	23	2	55	-	80
	Rainwater used (1,000 m ³)	0	0	0	-	0
	CO ₂ emission (t-CO ₂)	109,577	36,838	208,314	-	- 354,729 - 33,798 - 320,931 - 93
	CO ₂ emission [fuel] (t-CO ₂)	11,910	15,256	6,632	-	33,798
Atmosphere	CO ₂ emission [electricity, steam] (t-CO ₂)	97,667	21,582	201,682	Sites Iotal - <tr< td=""><td>320,931</td></tr<>	320,931
Atmosphere	Emission of ozone-depleting substances (ODP-kg)	15	0	78		93
	NOx emission (kg)	5,912 5,614 1,561	-	13,087		
	SOx emission (kg)	33	1	21	-	55
2	Total effluent discharge (1,000 m ³)	1,235	65	1,597	-	2,897
TUC	Into public water system (1,000 m ³)	119	0	161	-	280
OUTPUT Water and soil	Into sewage system (1,000 m ³)	1,116	65	1,436	-	2,617
→ Water and soil environments	BOD (kg)	0	0	1,056	-	1,056
of the office of	COD (kg)	1,494	0	1,498	-	2,992
	Nitrogen discharge (kg)	165	0	65	-	230
	Phosphorous discharge (kg)	0	0	9	-	9
	Total discharge (tons)	62,725	10,306	4,412	-	77,443
Waste	Recycled (tons)	60,829	7,307	4,039	-	72,175
	Final landfill waste disposal (tons)	1,896	2,793	373		5,062

49

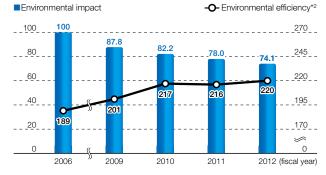
15

1

0

65

Environmental Impact and Environmental Efficiency*1



*1 The value in fiscal 2006 = 100 (baseline); Recalculated with non-production sites excluded. *2 Net sales / environmental impact

Environmental Management Activities ISO 14001 Certification

(73 systems at 134 operational sites, as of March 31, 2013)

■ ISO 14001 Certificates Obtained at Toppan Printing Co., Ltd. and Domestic Manufacturing Subsidiaries (within the scope of the environmental targets)

Operational Site (Division or Manufacturing Subsidiary)	Registrar	Registration Date
Electronics Division (Toppan Printing Co., Ltd.)	JQA	Jul. 1998
Toppan Cosmo, Inc. [Kashiwa Plant and Satte Plant of Toppan Decor Products Inc.]	JQA	Mar. 2000
Toyama Plant [including Manufacturing Department 3 and the Inspection Department] (NEC Toppan Circuit Solutions, Inc.)	JQA	Aug. 2000
Akihabara Office (Living Environment Division)	JQA	Mar. 2001
Tokyo-based operational sites (Information and Communication Manufacturing Subdivision of Toppan Printing Co., Ltd.)	SAI GLOBAL	Feb. 2002
Fukusaki Plant [including Toppan Packs Co., Ltd. and the Wakayama Plant of Toppan Plastic Co., Ltd.] (Toppan Packaging Products Co., Ltd.)	JQA	Jul. 2002
Takino Plants (Information and Communication Division, Living Environment Division)	JQA	Oct. 2002
Nishigaoka Site [including Kawaguchi transport department] (Toppan Logistics Co., Ltd.)	JQA	Oct. 2002
Gunma Plant (Toppan Packaging Products Co., Ltd.)	JQA	Jul. 2003
Asaka Plant	JQA	Dec. 2003
Mito Plant (Toppan Prosprint Co., Ltd.)	JSA	Jan. 2004
Saitama Plant, Miyagi Plant, Sano Plant (Toppan Containers Co., Ltd.)	JQA	Apr. 2004
Chugoku & Shikoku Subdivision [including the Fukuyama Plant of Toppan Joho Kako Co., Ltd. and the Hiroshima Office]	SAI GLOBAL	Oct. 2004
Nishinihon Division [including Ebie Site, Oyodo Plant, TGC Nakanoshima Site]	JQA	Nov. 2004
Higashinihon Division	JQA	Mar. 2005
Koto Plant (Toppan Prosprint Co., Ltd.)	JQA	Mar. 2005
Toppan Technical Research Institute	JQA	May 2005
Sapporo Plant, Chitose Plant (Hokkaido Subdivision)	JSA	Jun. 2005
Satte Plant [including Koshigaya Plant] (Toppan Plastic Co., Ltd.)	SAI GLOBAL	Dec. 2006
Ranzan Plant, Kyushu Plant (Toppan Packaging Service Co., Ltd.)	JQA	Feb. 2007
Sagamihara Plant (Toppan Packaging Products Co., Ltd.)	SAI GLOBAL	Mar. 2007
Saga Plant (Toppan Plastic Co., Ltd.)	SAI GLOBAL	Nov. 2007
Fukuoka Plant (Toppan Packaging Products Co., Ltd.)	SAI GLOBAL	Oct. 2008
Head office, Kanto branch, Kansai branch, Atsugi site (Toppan Techno Co., Ltd.)	SAI GLOBAL	Mar. 2009
Sodegaura Beverage Plant (Toppan Packaging Service Co., Ltd.)	SAI GLOBAL	Apr. 2009
Fukuoka Plant (Toppan Communication Products Co., Ltd.)	SAI GLOBAL	Oct. 2009
Fukaya Plant [including Satte Site] (Toppan Functional Products Co., Ltd.)	JQA	Mar. 2010
Nagoya Plant (Chubu Division)	JQA	Dec. 2010
Mikkabi Site (Toppan Packs Co., Ltd.)	SAI GLOBAL	Nov. 2010
Tamana Plant (Toppan Packs Co., Ltd.)	MSA	Mar. 2012
Matsuzaka Plant (Toppan Packaging Products Co., Ltd.)	JQA	Mar. 2012
Itami Plant (Toppan Packaging Products Co., Ltd.)	JQA	Sep. 2012

■ ISO 14001 Certificates Obtained at Domestic Subsidiaries (outside the scope of the environmental targets)

Operational Site (Group Company)	Registrar	Registration Date
Total Media Development Institute Co., Ltd.	JSA	Mar. 2001
Head office, Saitama Plant (Livretech Co., Ltd.)	JCQA	Jul. 2001
Fukushima Plant [including Takino Plant, Sagamihara Plant] (Toppan TDK Label Co., Ltd.)	JQA	Nov. 2001
Fussa Plant (Toppan Forms Central Products Co., Ltd.)	JQA	Feb. 2004
R&D Center (Toppan Forms Co., Ltd.)	JQA	Mar. 2004
Toppan Forms Tokai Co., Ltd.	JQA	Aug. 2004
Toppan Forms Kansai Co., Ltd.	JQA	Apr. 2007
Toppan Forms Nishinihon Co., Ltd.	JQA	Jan. 2005
Hino Plant (Toppan Media Printec Tokyo Co., Ltd.)	JSA	Nov. 2005
Zama Plant (Toppan Media Printec Tokyo Co., Ltd.)	JACO	Sep. 2009
Kawamoto Plant (Toppan Forms Central Products Co., Ltd.)	JQA	Aug. 2006
Head office, Plate-making Center, Kobe Plant, Kyoto Plant (Kansai Tosho Printing Co., Ltd.)	JQA	Jun. 2005
Tosho Printing Co., Ltd. [including Tosho Bookbinding Co., Ltd.]	JQA	May 2003
Ortus Technology Kochi Co., Ltd.	JQA	Feb. 2008
Toppan Forms (Sanyo) Co., Ltd.	JQA	Oct. 2009
Gunma Plant (Tamapoly Co., Ltd.)	JQA	Feb. 2011
Takiyama Plant (Toppan Forms Central Products Co., Ltd.)	JQA	Jun. 2001
Joto Center (Toppan Forms Central Products Co., Ltd.)	JQA	Sep. 2011
Mita Plant (Tamapoly Co., Ltd.)	JQA	Jan. 2012
Tokyo Logistics Co., Ltd.	JIA-QA	Aug. 2010

■ ISO 14001 Certificates Obtained at Overseas Subsidiaries (outside the scope of the environmental targets)

Group Company	Registrar	Registration Date
Toppan Photomasks France SAS	LRQA	Oct. 2000
Toppan Photomasks, Inc. [Santa Clara, Round Rock]	LRQA	Nov. 2001
Siam Toppan Packaging Co., Ltd.	MASCI	Apr. 2002
Toppan Printing Co., (H.K.) Ltd.	DNV	May 2002
Toppan Chunghwa Electronics Co., Ltd.	SGS	Oct. 2003
Toppan Photomasks Germany GmbH	LRQA	Oct. 2004
Toppan CFI (Taiwan) Co., Ltd.	SGS	Nov. 2004
Kaohsiung Plant of Toppan CFI (Taiwan) Co., Ltd.	SGS	Nov. 2010
P.T. Toppan Printing Indonesia	LRQA	Nov. 2004
Toppan Photomasks Co., Ltd. Shanghai Toppan Photomasks Korea Limited	LRQA	Feb. 2005
Toppan SMIC Electronics (Shanghai) Co., Ltd.	BSI	Feb. 2007
Toppan Leefung Printing (Shanghai) Co., Ltd.	CCCI	Apr. 2007
Toppan Yau Yue Paper Products (Shenzhen) Co., Ltd.	SGS	Nov. 2007
Shanghai Toppan Printing Co., Ltd.	NQA	Jul. 2008
Beijing Nippo Printing Co., Ltd.	SGS	Sep. 2009
Toppan Leefung Changcheng Printing (Beijing) Co., Ltd.	ZDHY	Nov. 2009
Toppan Yau Yue Paper Products (Dongguan) Co., Ltd.	MIC	Jan. 2009
Toppan Leefung Printing Limited (H.K.) Toppan Leefung Packaging & Printing (Dongguan) Co., Ltd.	CNAS	Mar. 2009
Toppan Excel Printing (Guangzhou) Company Limited	CTC	May 2009
Toppan Security Printing Pte. Ltd.	TUV	Aug. 2010
Toppan Yau Yue Packaging (Shenzhen) Co., Ltd.	SGS	May 2012
Toppan Leefung Printing (Shenzhen) Co., Ltd.	SGS	May 2012

Note: The company names accord with those mentioned in the registration certificate.

Fiscal 2012 Results of Environmental Education

Education or Training	Number of Trainees
New employee training: General environmental education (introductory level)	236
E-learning: Basic education on the environment	22,043
Toppan Business School	85
Challenge School: 16 courses related to the environment	128
Internal environmental auditor training program	100

Numbers of Internal Environmental Audits and Issues in Need of Improvement

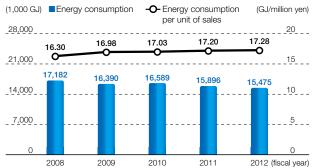
Domestic sites audited	72 sites
Issues in need of improvement identified at domestic sites	661 issues
Domestic sites reviewed	5 sites
Overseas sites audited	5 sites
Issues in need of improvement identified at overseas sites	20 issues

Mitigating Global Warming

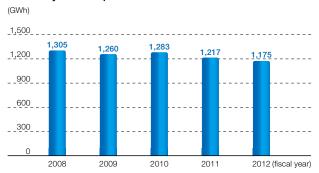
Mitigation of Global Warming through the Development of Energy-saving Measures

	Main Measure in Fiscal 2012	Reduction Result (t-CO ₂ /year)	Main Plan for Fiscal 2013	Reduction Target (t-CO ₂ /year)
Information & Networks	Sakado: Switched to energy-saving, root-style pumps for bookbinding	-1,610	Sakado: Replace existing refrigerating machines with the newest alternatives	-873
Networks	Takino: Replaced existing chillers with high- efficiency alternatives		Kawaguchi: Appropriately control the furnace temperature of deodorizing equipment	
Living Environment	Sagamihara: Replaced absorption refrigerating machines with turbo refrigerating machines	-4.136	Toppan Prosprint Mito: Apply insulation to valves for steam piping	-2,477
	Toppan Plastic Satte: Introduced free cooling systems	-4,100	Toppan Containers Saitama: Introduce low-pressure boilers to reduce loss	-2,477
Electronics	Niigata: Reviewed the operating hours of equipment by suspending inspection machines, etc. not in use and adopting other relevant measures Asaka: Consolidated the existing water	-4,399	Mie [Kameyama]: Operate air conditioners efficiently TNCSi Toyama: Improve the heat recovery from etching treatment liquid	-1,451
	purification systems			
Non-production sites	Technical Research Institute: Controlled the number of boilers in operation	-1	Technical Research Institute: Control the number of pumps in operation	-95
Total	-	-10,146	-	-4,897

Energy Consumption



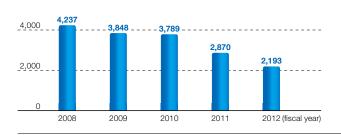




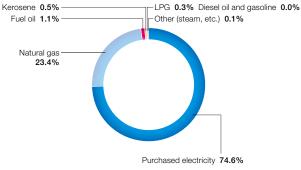
Kerosene Consumption

(kL)

6,000

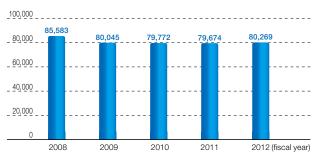


Ratios by Energy Type (in terms of caloric value)



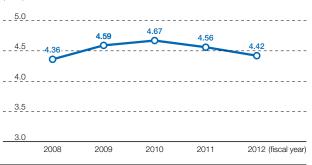
Natural Gas Consumption

(1,000 Nm³)



Fuel Efficiency of Vehicles Owned by Toppan Logistics

(km/L)



Ratios of Greenhouse Gas Emissions by Type (in tons of CO2 equivalent)

Fiscal Year	CO ₂	SF ₆	N ₂ O	CH ₄	Total
2012	99.53%	0.41%	0.05%	0.01%	1,179,740 t-CO ₂

Ratios of Greenhouse Gas Emissions by Source (in tons of CO2 equivalent)

Fiscal Year	Scope 1		Scope 2	Total	
riscal tear	Fuel Use	Waste Incineration	Use of Electricity and Steam	Iotai	
2012	22% (264,984 t-CO ₂)	2% (28,640 t-CO ₂)	75% (886,116 t-CO ₂)	100% (1,179,740 t-CO ₂)	

Notes: • Calculated by the method specified in the Manual for Calculating and Reporting Greenhouse Gas Emissions (Ver. 3.4) from the Ministry of the Environment and Ministry of Economy, Trade and Industry of Japan.

For greenhouse gas (GHG) emissions from domestic sites (within the scope of the environmental targets), Toppan calculated emissions of energy-derived CO_2 and other types of GHG (CH₄, N₂O, HFC, PFC, SF₆, and non-energy-derived CO_2) and included GHG emissions that accounted for 0.01% or more out of total emissions in CO_2 equivalent units from the sites subject to the calculation (namely the emissions associated with waste burned in incinerators and fuel used in cogeneration systems) in the figures in the above two charts.

Building a Recycling-oriented Society

Promotion of Waste Reduction and Recycling

	Main Measure in Fiscal 2012	Reduction Result (tons/year)	Main Plan for Fiscal 2013	Reduction Target (tons/year)
Information & Networks	Toppan Joho Kako Fukuyama: Recycled ink cans Toppan Communication Products Nagoya: Reduced the discharge of waste liquids through the use of independently developed flocculation equipment	-515	Toppan Communication Products Itabashi: Reduce the discharge of waste liquids through the operation of condensation equipment Toppan Communication Products Takino: Reduce the discharge of waste paper through the reduction of paper loss	-280
Living Environment	Toppan Packaging Products Gunma: Processed cinder for reuse as a raw material for cement Toppan Packaging Products Sagamihara: Visualized the discharge of waste by department Toppan Decor Products Satte: Processed waste oil residue for reuse as a raw material for cement	-1,655	Toppan Packaging Products Fukusaki: Recycle aluminum-deposition composite products Toppan Packaging Products Fukuoka: Recycle waste plastic	-717
Electronics	TNCSi Toyama: Recycled sludge Toppan Electronics Products Niigata: Recycled waste glass Toppan Electronics Products Shiga: Recycled sludge	-632	Toppan Electronics Products Mie: Reduce the discharge of sludge (waste activated carbon) Toppan Electronics Products Shiga: Recycle sludge	-102
Non-production sites	Shibaura Building: Reduced non-industrial waste Managed waste at offices	-14	Koishikawa Building: Promote paperless meetings Shibaura Building: Reduce the discharge of waste from copy machines and printers	-51
Total	-	-2,816	-	-1,150

Note: Includes measures to reduce waste discharge per unit of production value, improve the material recycling rate, reduce final landfill waste disposal, and expand the number of certified zero-emission sites.

Waste Discharge Per Unit of Production Value

(tons/million yen)



Fiscal 2012 Results of Waste Discharge and Recycling

			-	
Type of Waste	Waste Discharged (tons)	Ratio	Recycling Rate	Primary Reusage
Waste paper	197,819	74.6%	99.8	Recycled paper
Waste plastic	25,514	9.6%	99.2	Plastic materials, RPF*1
Waste acid	11,060	4.2%	99.1	Neutralizer
Waste oil	7,094	2.7%	99.7	Recycled oil, fuel
Sludge	7,049	2.7%	98.7	Roadbed materials
Waste alkali	5,951	2.2%	99.2	Neutralizer
Waste metal	5,152	1.9%	100.0	Metal materials
Waste wood	2,556	1.0%	99.9	Chip, paper materials
Cinder	1,549	0.6%	92.8	Roadbed materials
Other	585	0.2%	67.9	_
Waste glass	524	0.2%	96.8	Glass materials
Food waste	222	0.1%	84.6	Feed
Total	265,075	100.0%	99.6	—

*1 Refuse Paper & Plastic Fuel (RPF): Solid fuel primarily made from refuse paper and plastic waste

Zero-emission Sites (TZERO-12) (54 sites approved in July 2012)

Operational Site (Division or Group Company)	Total Waste Generation in Fiscal 2011 (tons)	Waste Recycled in Fiscal 2011 (tons)	Recycling Rate in Fiscal 2011 (%)	Rank
Sapporo Plant (Hokkaido Subdivision)	2,437	2,437	100.00%	S
tabashi Site	7,147	7,110	99.49%	A+
saka Site [Commercial Printing, Publications Printing] (Toppan				
Communication Products Co., Ltd.)	5,979	5,973	99.90%	S
Asaka Site (Toppan Joho Kako Co., Ltd.)				
saka Securities Printing Plant (Toppan Communication Products Co., Ltd.)	3,028	3,028	100.00%	S
zawaguchi Site	40,760	40,760	100.00%	S
Sakado Site	26,581	26,581	100.00%	S
Ranzan Plant (Toppan Communication Products Co., Ltd.)	715	715	100.00%	S
lagoya Plant (Chubu Division)	6,086	6,083	99.94%	S
akino Plant (Toppan Communication Products Co., Ltd.)	10,455	10,378	99.27%	A+
akino Securities Printing Plant (Toppan Communication Products Co., Ltd.)	867	855	98.57%	А
ukuoka Plant (Toppan Communication Products Co., Ltd.)	5,151	5,151	100.00%	S
abashi Plant (Toppan Joho Kako Co., Ltd.)	15,574	15,571	99.98%	S
ukuyama Plant (Toppan Joho Kako Co., Ltd.)	4,225	4,187	99.12%	A+
ansei Printing Ltd.	32	32	100.00%	S
hitose Plant (Hokkaido Subdivision)	5,111	5,043	98.68%	А
agamihara Plant (Toppan Packaging Products Co., Ltd.)				
agamihara Site (Toppan Packs Co., Ltd.)	19,091	19,091	100.00%	S
latsuzaka Plant (Toppan Packaging Products Co., Ltd.)	3,061	3,042	99.38%	A+
akino Plant (Toppan Packaging Products Co., Ltd.)	5,223	5,223	100.00%	S
ami Plant (Toppan Packaging Products Co., Ltd.)	8,515	8,477	99.56%	S
ukuoka Plant (Toppan Communication Products Co., Ltd.)	5,709	5,708	99.98%	S
oppan office inside Fukuren Co., Ltd.	82	82	100.00%	S
likkabi Site (Toppan Packs Co., Ltd.)	3,443	3,443	100.00%	S
amana Plant (Nishinihon Site of Toppan Packs Co., Ltd.)	4,603	4,591	99.74%	S
liyagi Plant (Toppan Containers Co., Ltd.)	3,327	3,261	98.01%	S
ano Plant (Toppan Containers Co., Ltd.)	3,648	3,621	99.28%	A+
aitama Plant (Toppan Containers Co., Ltd.)	8,946	8,853	98.96%	A
fumagaya Site (Toppan Containers Co., Ltd.)	300	299	99.91%	S
oshigaya Plant (Toppan Plastic Co., Ltd.)	636	636	100.00%	S
atte Plant (Toppan Plastic Co., Ltd.)	343	343	100.00%	S
ukusaki Plant (Toppan Plastic Co., Ltd.)	310	310	100.00%	S
Vakayama Manufacturing Section (Fukusaki Plant of Toppan Plastic :o., Ltd.)	94	94	100.00%	S
aga Plant (Toppan Plastic Co., Ltd.)	237	237	99.91%	S
anzan Plant (Toppan Packaging Service Co., Ltd.)	359	359	100.00%	S
odegaura Beverage Plant (Toppan Packaging Service Co., Ltd.)	661	650	98.45%	А
yushu Plant (Toppan Packaging Service Co., Ltd.)	128	128	100.00%	S
lito Plant (Toppan Prosprint Co., Ltd.)	3,502	3,499	99.91%	S
oto Plant (Toppan Prosprint Co., Ltd.)	1,861	1,860	99.93%	S
atte Plant (Toppan Functional Products Co., Ltd.)	730	730	100.00%	S
ukaya Plant (Toppan Functional Products Co., Ltd.)	1,900	1,898	99.90%	S
ashiwa Plant (Toppan Decor Products Inc.)	538	538	100.00%	S
atte Plant (Toppan Decor Products Inc.)	5,597	5,597	100.00%	S
pppan Harima Products Co., Ltd.	434	434	100.00%	S
endai Plant (Higashinihon Division)	4,199	4,157	99.01%	A+
saka Plant (Toppan Electronics Products Co., Ltd.)	315	315	100.00%	S
higa Plant (Toppan Electronics Products Co., Ltd.)		515	100.00%	
higa Plant (Toppan TOMOEGAWA Optical Products Co., Ltd.)	4,256	4,187	98.38%	A
lie Plant [Kameyama] (Toppan Electronics Products Co., Ltd.)	1,747	1,747	100.00%	S
lie Plant [Hisai] (Toppan Electronics Products Co., Ltd.)	2,354	2,354	100.00%	S
akai Plant (Toppan Electronics Products Co., Ltd.)	559	557	99.73%	S
iigata Plant (Toppan Electronics Products Co., Ltd.) iigata Plant (NEC Toppan Circuit Solutions, Inc.)	12,393	12,382	99.92%	S
umamoto Plant (Toppan Electronics Products Co., Ltd.)	3,510	3,510	100.00%	S
byama Plant (NEC Toppan Circuit Solutions, Inc.)				2
oyama Plant (Toppan Electronics Products Co., Ltd.)	3,517	3,515	99.92%	S
echnical Research Institute (Toppan Printing Co., Ltd.)	301	295	98.00%	А
ishigaoka Site (Toppan Logistics Co., Ltd.)	425	425	100.00%	S
okorozawa Distribution Center (Toppan Logistics Co., Ltd.)	261	261	100.00%	S
ata, Tannan annrovas anarational sitas as zero amission sitas hasad ar	· · · · ·	- I		

Note: Toppan approves operational sites as zero-emission sites based on a three-level grading system according to their recycling rates. S-rank site: recycling rate of 99.5% or over; A+-rank site: recycling rate of 99% or over and less than 99.5%; A-rank site: recycling rate of 98% or over and less than 99% Operational sites satisfying any of the above criteria were approved as zero-emission sites in July 2012.

Preventing Pollution / Controlling Chemical Substances NOx and SOx*1 Emissions



*1 NOx: Nitrogen oxides; SOx: Sulfur oxides

							Total
PRTR No.	Chemical Substance	Handled	Released	1. Atmosphere	2. Water	3. Soil	Transferred
20	2-aminoethanol	37,067	0	0	0	0	8,212
30	Linear alkylbenzenesulfonate and chlorides	2,401	0	0	0	0	618
44	Indium and its compounds	8,046	56	0	56	0	3
53	Ethylbenzene	21,406	2,817	2,817	0	0	215
58	Ethylene glycol monomethyl ether	2,250	86	86	0	0	520
59	Ethylenediamine	4,165	0	0	0	0	4,037
71	Ferric chloride	1,755,681	5	0	5	0	1,546,281
76	ε-caprolactam	2,105	0	0	0	0	212
80	Xylene	45,909	5,351	5,351	0	0	271
87	Chromium and trivalent chromium compounds	27,813	20	0	20	0	6,922
88	Hexavalent chromium compounds	18,385	7	0	7	0	1,199
144	Inorganic cyanide compounds	2,325	0	0	0	0	77
151	1,3-dioxolane	22,168	3,386	3,386	0	0	4,971
243	Dioxins (mg-TEQ)	612	14	14	0	0	598
272	Copper salts (water-soluble, except complex salts)	823,962	288	0	288	0	88,282
275	Sodium dodecyl sulfate	1,059	0	0	0	0	23
291	1,3,5-tris(2, 3-epoxypropyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	1,764	0	0	0	0	365
296	1,2,4-trimethylbenzene	59,407	5,399	5,399	0	0	886
297	1,3,5-trimethylbenzene	10,796	1,955	1,955	0	0	8,542
300	Toluene	3,349,186	276,668	276,668	0	0	410,305
306	Hexamethylene diacrylate	1,653	1,653	1,653	0	0	0
308	Nickel	48,641	0	0	0	0	680
309	Nickel compounds	26,511	49	0	49	0	22,425
374	Hydrogen fluoride and its water-soluble salts	3,280	115	0	115	0	3,165
392	n-hexane	1,230	47	47	0	0	284
395	Water-soluble salts of peroxodisulfuric acid	255,129	0	0	0	0	0
405	Boron and its compounds	1,728	31	0	31	0	2
407	Poly(oxyethylene)alkyl ether (alkyl C=12-15)	3,581	130	130	0	0	52
411	Formaldehyde	44,871	28	28	0	0	46
412	Manganese and its compounds	9,982	70	0	70	0	1,586
420	Methyl methacrylate	7,188	245	245	0	0	528
438	Methylnaphthalene	72,222	362	362	0	0	0
448	Methylenebis(4,1-phenylene) diisocyanate	17,240	0	0	0	0	201
-	Total	6,689,151	298,768	298,127	641	0	2,110,910

Notes: • Period covered: April 1, 2012–March 31, 2013

Period covered: April 1, 2012–March 31, 2013
 Substances declared to authorities by Toppan under the PRTR system: The 33 substances shown above
 Operational sites covered: Sites that handle more than 1.0 ton of Class I designated chemical substances per year. (Or specified Class I designated chemical substances in excess of 0.5 tons per year.)
 The total transfer is the sum of transfers into waste and sewage systems.

Promoting the Conservation of Biodiversity **ECO-GREEN** Purchasing

Fiscal Year	2009	2010	2011	2012
Number of cases	2,634	2,703	2,825	2,561
	2,034	/	2,020	2,00

Note: ECO-GREEN is a toilet paper composed of about 50% used Cartocan paper.

Eco-creativity Activities

List of Environmentally Friendly Products (106 products as of March 2013)

Business Field	Product	Environmental Point
	Ecothrough card	Suitability for disposal
	Paper IC Card	Use of recycled materials
Sec	Bulky Waste Processing Sticker	Resource-saving (reduced use of materials)
Securities and Cards	Card for ETC	Suitability for disposal
ies a	Rewritable Paper	Long product life
and	Ultra-thin DM	Resource-saving
Caro	Green Bankbook	Recyclability
S	KAMICARD®	Biodegradability, recyclability
	KAMI-RFID CARD	Easy separation and disassembly, recyclability
	Eco Pack (life-size POP display)	Resource-saving (reduced use of materials)
	Paper Desk Calendar	Use of recycled materials
	Ecology Calendar	Use of recycled materials
0	Eco POP	Use of recycled materials, suitability for disposal, energy-saving
omn	Cerap	Suitability for disposal
Commercial Printing	Eco Pack Stand	Resource-saving
ă F	Eco Pack Multipanel	Reusability
'rinti	Eco Floor Sticker	Suitability for disposal
bu	Eco Pack End Panel	Resource-saving
	Eco Pack Stand, Round-type	Resource-saving
	EPOP	Use of safe materials
	Eco Pack Multipanel Mini	Reusability
	Multicube POP	Reusability
т	Recycled vegetable-Oil Ink	Use of recycled materials
Publications Printing	Polyurethane Reactive Hot-Melt	Easy separation and disassembly
nting	Non-Vinyl Chloride Lenticular Lens	Suitability for disposal
suc	Disk Tottokun Series	Recyclability
	Halogen-free printed wiring board	Suitability for disposal
Ш	Anti-reflection film	Use of safe materials
ectro	Color filter (resin black matrix [BM])	Use of safe materials
Electronics	Palladium-plated leadframe Lead-free solder coated printed	Use of safe materials Use of safe materials
	wiring board	Suitability for disposal
	GL Family	Resource-saving (reduced
	Standing pouch for refill	use of materials)
	Bottled Pouch	Resource-saving (reduced use of materials)
	Plastic Container Made from Recycled Materials	Use of recycled materials
	Ecogloss (environmentally-friendly gloss finishing)	Resource-saving (reduced use of exhaustible materials), use of recycled materials
	Recording Media Packaging	Resource-saving (reduced use of exhaustible materials)
	TT Paper Can	Easy separation and disassembly
	Neovert	Use of recycled materials
	Ecotainer	Resource-saving (reduced use of exhaustible resources)
Packaging	TL-PAK	Resource-saving (reduced use of exhaustible resources) Resource-saving (reduced
ging	EP-PAK (EP-GL)	energy usage in logistics)
	EP-PAK (AI)	Resource-saving (reduced energy usage in logistics) Resource-saving (reduced
	Stand-up Laminated Tube	use of materials)
	Recyclen Cap	Easy separation and disassembly
	AP Cartons	Resource-saving (reduced use of energy in logistics)
	Micro-Flute	Resource-saving (reduced
	TP-Tray	use of energy in logistics) Recyclability
	Corrugated Absorber	Recyclability
		Recyclability Resource-saving (reduced
	AD-Case	use of materials)
	Cartocan	Recyclability
	Paper Cup Made from Recycled	

h 2013)		
Business Field	Product	Environmental Point
Field	Cup made from Tree-Free paper	Resource-saving (use of byproducts)
	Biodegradable Package	Biodegradability
	Cylindrical Paper Cartridges	Resource-saving (reduced
		use of energy in logistics)
	Coated Barrier Film	Suitability for disposal
	GL-C Bottle	Resource-saving
	GX film	Resource-saving
	Jar Plus	Resource-saving
	Tray All	Easy separation and disassembly
	GL Film Lined Paper Cup	Resource-saving
	Double-Wall Barrier Cup	Resource-saving
	Oil-Proof Paper	Use of safe materials
	Functional Coated Paper In-Mold Barrier Cup	Recyclability Resource-saving
	Tamper-Evident Recyclen Cap	Easy separation and disassembly
	Easy peel-off thermo-label for	
	PET bottles	Easy separation and disassembly
	Ecoband	Resource-saving
	Water-based Cold Seal	Reduced release of chemical substances
	Biodegradable Plant Pot	Biodegradability
	Barrier Cup (NSP Process)	Resource-saving
	Plastic Clip	Recyclability
	Notchless Easy-cut Container	Resource-saving (reduced energy
	(AL type) Recycled PET Clear Case	expended in manufacturing) Recyclability
	ALUGLAS	Suitability for disposal
	Stripping and heat-sensitive label	
	for glass bottles	Easy separation and disassembly
	Food container made from heat-resistant paper	Resource-saving
	Paper carton with tamper evident closure	Resource-saving
P	One-piece occlusion-preventive	Resource-saving
Packaging	plug for TL-PAKs Sealed paper tray	Resource-saving
iging	Flexible packaging material using paper	Resource-saving
Q	Clear UV-Blocking Film	Suitability for disposal
	Injection-molded articles of biomass-plastics	Resource-saving
	EL-Case	Easy separation and disassembly
	Oil-proof paper for fluorine-free	Use of safe materials
	cardboard Paper cup made from pulp from	
	forest-thinning	Resource-saving
	GL-type back sheet for solar cells	Suitability for disposal, long product life
	Paper composite container	Resource-saving, recyclability
	Pouch-type fragrance container	Resource-saving, recyclability
	Resource-saving Cartocan	Resource-saving, recyclability
	(rectangular type) Packaging materials using	Reduced release of chemical
	low-migration type adhesives	substances, use of safe materials
	Delayed-tack label for glass bottles (film type)	Easy separation and disassembly, resource-saving
	Cylindrical paper-complex container	Resource-saving
	High Resistance Flexible Pouch	Resource-saving
	Folding Pouch (for refilling)	Easy separation and disassembly
	Biomass plastic shrink label	Resource-saving
	In-mold Decorated Components	Reduced release of chemical
	Aluminum-free Dead-fold Lid Material	substances Suitability for disposal
	Polyolefin GL-C	Resource-saving
	Solar cell back sheet	Energy-saving
	Special Shaped Pouch with	Easy separation and
	Embossing and Laser-cutting	disassembly
	Heat-insulating Paper with Foamed Layer	Reduced energy consumption in production
	Moisture-barrier standing pouch	Resource-saving, suitability for disposal
	Multi-layer blow tube	Reduced solid waste, resource-saving
	Steam Release Packaging	Resource-saving, reduced
	(GL standing pouch type)	solid waste
	Air Hold Pouch	Reduced solid waste, resource-saving

Environmental Accounting

Capital Investment for Environmental Conservation (million yen)

	Item	Major Content	Fiscal 2012	Increase/ Decrease from Fiscal 2011	Total Sum for the Last Five Years
1	Investment in equipment to prevent pollution	Investment in equip- ment to prevent atmospheric and other forms of pollution	474	-117	911
2	Investment in equipment to conserve the global environment	Investment in equip- ment to conserve the global environment by mitigating global warming, etc.	842	-161	791
3	Investment in equipment to circulate resources	Investment in equip- ment to realize the appropriate treatment and recycling, etc. of waste	438	-139	428
4	Investment in equipment to carry out management activities	Investment in equip- ment to monitor and measure environmental burdens, plant trees at operational sites, and implement other eco-friendly initiatives	63	-24	80
Tot	tal		1,817	-441	2,210

Note: The data for fiscal 2011 and earlier are adjusted based on revised calculation methods.

Green Procurement and Green Purchasing Green Procurement Standards for Paper and Levels of Fulfillment

Environmental Conservation Benefit

Item	Major Content	Increase/ Decrease*1	Fiscal 2012
Energy	Total energy consumption (1,000 GJ)	-581	23,905
Water	Water consumption (1,000 m ³)	-1,205	18,830
	CO ₂ emission (1,000 t-CO ₂)	-26	1,174
	Emission of ozone-depleting substances (ODP-t)	-3	153
Atmosphere	NOx emission (tons)	-30	143
	SOx emission (tons)	-3	27
	Emission of dioxins (mg-TEQ)	6	18
Water and soil	Total effluent discharge (1,000 m ³)	-1,270	16,428
environments	BOD (tons)	-17	43
	COD (tons)	-13	16
Waste	Total discharge (1,000 tons)	-57	419

*1 Increases and decreases from fiscal 2011

Green Principal	Level 1	Level 2	Fiscal 2012 Result*2
1. Using recycled paper	Paper that uses at least 60% recycled pulp plus forest-certified paper for the remaining portion, or an overall rating of more than 80 points	Paper that uses at least 50% recycled pulp, forest-certified paper, tree-free paper, or paper made with pulp from forest-thinning operations	
2. Considering the degree of whiteness	 Below about 80% for non-coated paper; Not applicable for products with an overal or colored paper. 	I rating of more than 80 points, or for fancy	
3. Considering the volume of coating	•Below about 30 g/m ² (both faces); Not applicable for products with an overall rating of more than 80 points, or for art paper.		6.8%
4. Reducing component properties obstructive to waste paper recycling	Non-usage of printing materials with waste paper recyclability rankings of B, C, or D	Non-usage of printing materials with waste paper recyclability rankings of C or D	
5. Procuring from manufacturers proactively engaged in paper recycling	Procurement from manufacturers who proactively use waste paper as a raw material for recycled paper		
Consideration: The reduction of paper weight	Reduction in weight as far as possible based on the purposes of use of printed materials		

Note: Result under the Green Standards for Offset Printing Services (September 1, 2011 amendment) of the Japan Federation of Printing Industries (JFPI) *2 Level 1 or 2 paper used (kg) / offset paper purchased (kg)

Green Procurement Standards for Ink and Levels of Fulfillment

Green Principle	Level 1	Level 2	Fiscal 2012 Result*3
1. Avoiding the use of substances harmful to the human body	Conformance with the NL regulations of the Japan Printing Ink Makers Association		
2. Avoiding the use of substances known to generate hazardous substances	Non-usage of chloride-based resins		
3. Considering chemical substances designated under the PRTR law	Non-usage of substances designated under the PRTR law	Identification of substances designated under the PRTR law (via MSDSs)	- 98.5%
 Controlling VOC emissions (for offset ink, excluding heat-set ink for web press) 	Non-VOC ink or UV ink	Vegetable oil ink or soybean oil ink	
5. Using sustainable resources (for heat-set ink for web press)	Vegetable oil ink or soybean oil ink		
6. Reducing component properties obstructive to waste paper recycling	Non-usage of printing materials with waste paper recyclability rankings of B, C, or D	Non-usage of printing materials with waste paper recyclability rankings of C or D	

Note: Result under the Green Standards for Offset Printing Services (September 1, 2011 amendment) of the Japan Federation of Printing Industries (JFPI). *3 Level 1 or 2 ink used (kg) / offset ink purchased (kg)

In-house Green Purchasing Standards and Levels of Fulfillment

Product	Standard	Result for Fiscal 2012
Copy machines and printers	Configured to automatically revert to low-power mode or off mode	100%
PCs	Configured to automatically revert to low-power mode or off mode	100%
Stationery and office goods	Products listed in eco-friendly product catalogues of manufacturers	80.8%