

NSTDA Annual Conference 2013

Eco Labels in AEC

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Eco labels in AEC



ASEAN and Type 1 Ecolabelling



ASEAN	GEN member	No. of standards	No. of certified products
Singapore	Yes	45	2150
Thailand	Yes	73	512
Philippines	Yes	37	41
Malaysia*	Yes	37	72
Indonesia	Yes	11	19
Brunei	No	-	-
Cambodia	No	-	-
Laos	No	-	-
Myanmar	No	-	-
Vietnam	No	-	-

Thailand



Thai Green Label Scheme

- initiated by the Thailand Business Council for Sustainable Development (TBCSD)
- formally launched in August 1994 by the Thailand Environment Institute (TEI) in association with the Ministry of Industry
- recognized as a member of GEN



Carbon Reduction Label

- developed and supported by the Thailand GHG Management Organization (TGO) and TEI
- awarded to registered products when one of three criteria of GHG reduction in the manufacturing process of the product is fulfilled

Thai Green Label – List of applicable products (Total 73 products)

Building products	Electrical appliances	IT
Gypsum board	Hand driers	VDO media players/recorders
Panels for the building, decorating and furniture industry	Washing machines for household	Facsimile machine
Ceramic floor/roof tiles	Microwave ovens	Photocopiers
Cement roof tiles	Vacuum cleaners	Printers
Concrete roof tiles	Electric kettles	Mobile phones
Clay roof tiles	Electric rice cooker	Computers
Building glasses	Refrigerators	Office products
Thermal insulations	Air conditioners	Writing instruments
Rubber insulation	Electric fans	Papers
Cement board	TVs	Printing inks
Plastic pipes: PE	Fluorescent lamps	Correcting agents
Bricks and blocks	Luminaires for double-capped fluorescent lamp	
Wall coverings	Electronic ballasts	
Floor coverings	Heat pumps	
Windows, doors and frames	Motors	
Paints		
Furniture		

Thai Green Label – List of applicable products

Household	Automotive
Sanitary ware (Water closets)	Car batteries
Secondary batteries	Motorcycle tires
Primary batteries	Tyres
Faucets and water saving	Motocycles
Product made from rubber wood	Vehicles
Chemical related products	Canopy and deck cover for motor vehicle
Surface cleaners	Services
Laundry detergent products	Dry cleaning and laundry service
Dishwashing detergents	Gasoline stations
Liquid softener	Lubricant changing service stations
Lubricant	Textile
Fire extinguishers	Products made of cloth
Soap	Carpet
Shampoo	Others
Spray	Fertilizers
	Recycled plastic products
	Compostable plastic products

Carbon Footprint of Products



- initiated by the TGO in collaboration with the Thai National Metal and Materials Technology Center (MTEC), and the National Science and Technology Development Agency (NSTDA) under the Ministry of Science and Technology
- focuses on the quantification and depiction of GHG-emissions of a specified product



Thai Energy Efficiency Label

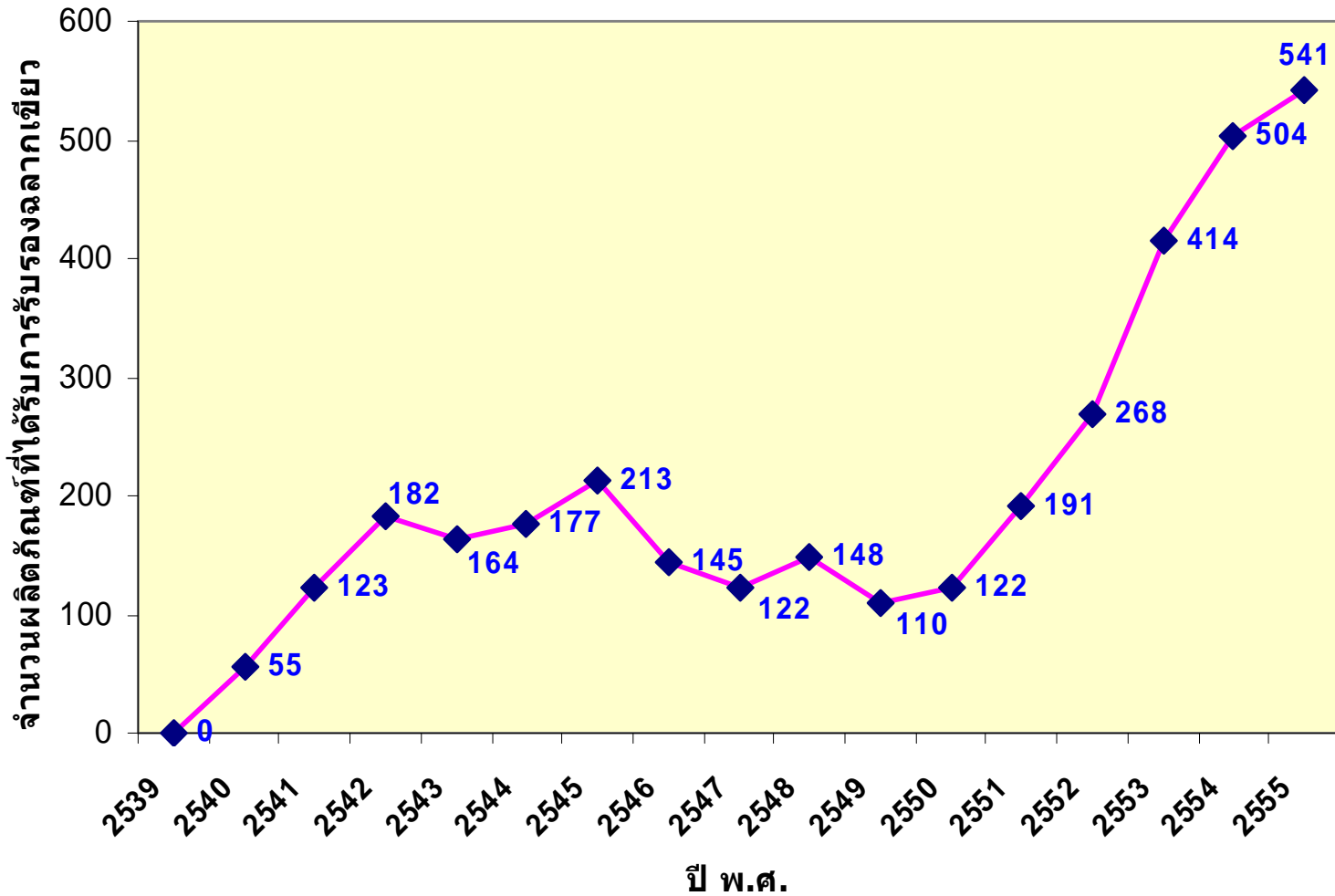
- initiated Ministry of Energy since 1990, promoted by Electricity Generating Authority of Thailand (EGAT)
- electrical products

Green Leaf Standard



- supported by the Green Leaf Foundation and the Board of Environmental Promotion of Tourism Activities (BEPTA)
- focuses on environmental quality of hotel accommodations.

จำนวนผลิตภัณฑ์ที่ได้รับการรับรองเครื่องหมายฉลากเขียว ตั้งแต่เริ่มต้นโครงการจนถึงปัจจุบัน



Indonesia



Ekolabel Indonesia

- Practitioner organization: Ministry of Environment
- recognized as a member of GEN
- Detergents, leather, leather casual shoes, textiles, tissue paper, un-coating printing paper, wrapping paper



Lembaga Indonesia Ekolabel

- Practitioner organization: Indonesian Ecolabelling Institute (LEI-Lembaga Ekolabel Indone-sia
- Forest certification systems



Energy Efficiency Label

- Launched in 2008 by the Directorate General of Electricity and Energy Development (DGEED)
- Electrical products

Malaysia



- Program: [SIRIM Ecolabelling Scheme](#)
- Practitioner organization: SIRIM QAS International Sdn Bhd
- recognized as a member of GEN

Group of product criteria

- Adhesives
- Apparel and textile products from natural fibres
- Ballpoint pens
- Biodegradable cleaning agents, (upgraded to ms 2225:2009)
- Biofibre composite construction material
- Biomass pellets and briquettes
- Carpets
- Cement
- Ceramic tiles
- Clay roof tiles
- Coated flat steel products
- Concrete roofing tiles
- Energy saving electronic ballasts
- Environmentally degradable & non-toxic plastic packaging material, (upgraded to ms 2073:2008)
- Fabric care products
- Fibre cement products
- Flat glass products
- Floor mats
- Fluorescent lamps
- Food-grade lubricants
- Hazardous metal-free electrical and electronic equipment & parts, (upgraded to ms 2237:2009)
- Luminaires and light sources for interior lightings
- Masonry units
- Organic fertilizer
- Paints
- Paper printed material
- Paper-based packaging products, (upgraded to ms 2454:2012)
- Printing ink
- Recycled paper, (upgraded to ms 2080:2008)
- Recycled plastic products
- Recycled rubber products
- Shampoo products
- Shower liquid products
- Solid body soap products
- Tableware from biomass
- Water-based adhesives

Philippines



- Practitioner: The Philippine Centre for Environmental Protection and Sustainable Development, Inc. (PCEPSDI)
- Program: [Green Choice Philippines](#)
- recognized as a member of GEN

- Automotive engine oil
- Automotive service stations
- Bath soap
- Cement
- Ceramic tiles
- Computer monitor
- Crayons
- Desktop computer
- Electronic ballasts
- Facsimile machines
- Fluorescents
- Hair shampoo

- Induction lamp luminaires
- Infill material
- Inkjet cartridges
- Laptop computers
- Light emitting diodes
- Liquid dishwashing
- Liquid disinfectants
- Mfpd
- Oil based paints
- Organic liquid disinfectants
- Paper envelopes
- Paperboard pens

- Pencil photocopiers
- Polyethylene packaging
- Portable fire extinguishers
- Printers
- Printing and writing paper
- Synthetic laundry detergents
- Tissue paper products
- Toner cartridges
- Water-based paints
- Zinc carbon batteries

Singapore



Singapore Green Label Scheme (SGLS)

- administered by the Singapore Environment Council (SEC)
- launched in 1992
- recognized as a member of GEN

Group of product criteria

- Building materials
- Cleansers & detergents
- Electronics
- Home appliances
- Lighting
- Office machines
- Office products
- Organics
- Others
- Packaging
- Paints & surface coatings
- Paper products
- Personal hygiene



Singapore Green Building Product Certification Scheme

- launched in 2010 by the Singapore Green Building Council (SGBC)
- complements the Building and Construction Authority (BCA) Green Mark Scheme

Singapore



Energy labelling scheme

- launched by the National Environment Agency (NEA) in association with the Singapore Environment Council (SEC).
- It started out as a voluntary certification scheme in 2002.
- At mid-2007, the requirement of affixing energy efficiency labels to all air-conditioners and refrigerators that are to be sold became mandatory.

Thank you!



More information...

Contact

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Additional info. (for reference)

Environmental Labels

- ❑ Seal of approval for the environmentally friendly products
- ❑ Market-driven tool for environmental improvement
- ❑ Convey information regarding the environmental friendliness of the product to consumers in simple and objective way
- ❑ Encourage the manufacturers to improve their technologies to a lower environmental impact



Types of Environmental Label

- **Type I** (ISO 14024): Voluntary, multiple criteria-based, practitioner programs, based on life cycle considerations
- **Type II** (ISO 14021): Informative environmental self-declaration claims made by manufacturers, importers, distributors or retailers
- **Type III** (ISO 14025): Quantified product information label based upon independent verification using preset indices (life cycle assessment)

Type 1 Environmental Labels (27 Schemes)



Germany



Canada



Japan



Nordic



ROC



USA



Brazil



China



Korea



EU



Singapore



Thailand



HKFEP



Philippines



SSNC



Indonesia



NZ



Australia



India



Sweden



Russia



Croatia



Czech



HK



Ukraine



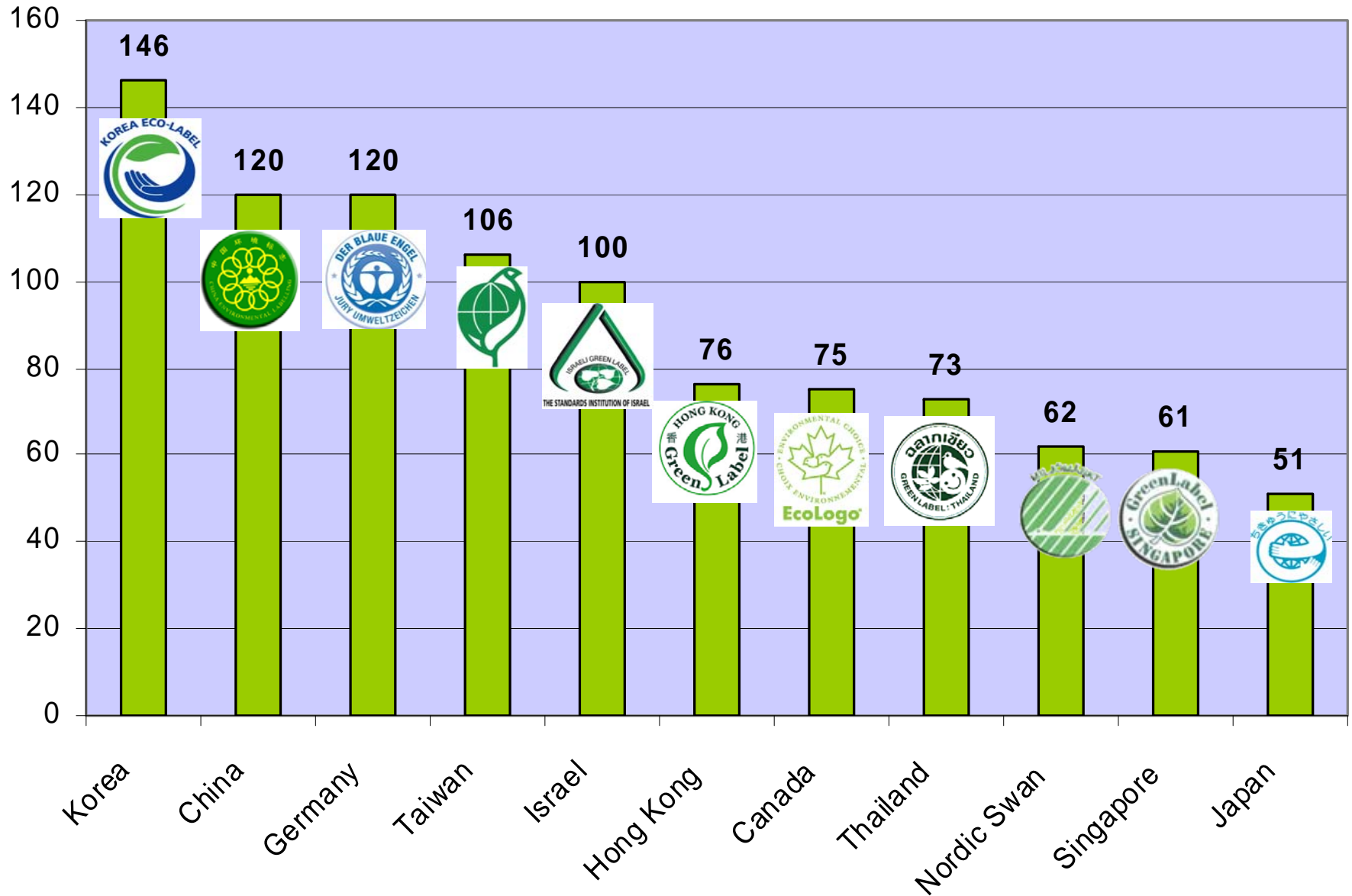
Malaysia



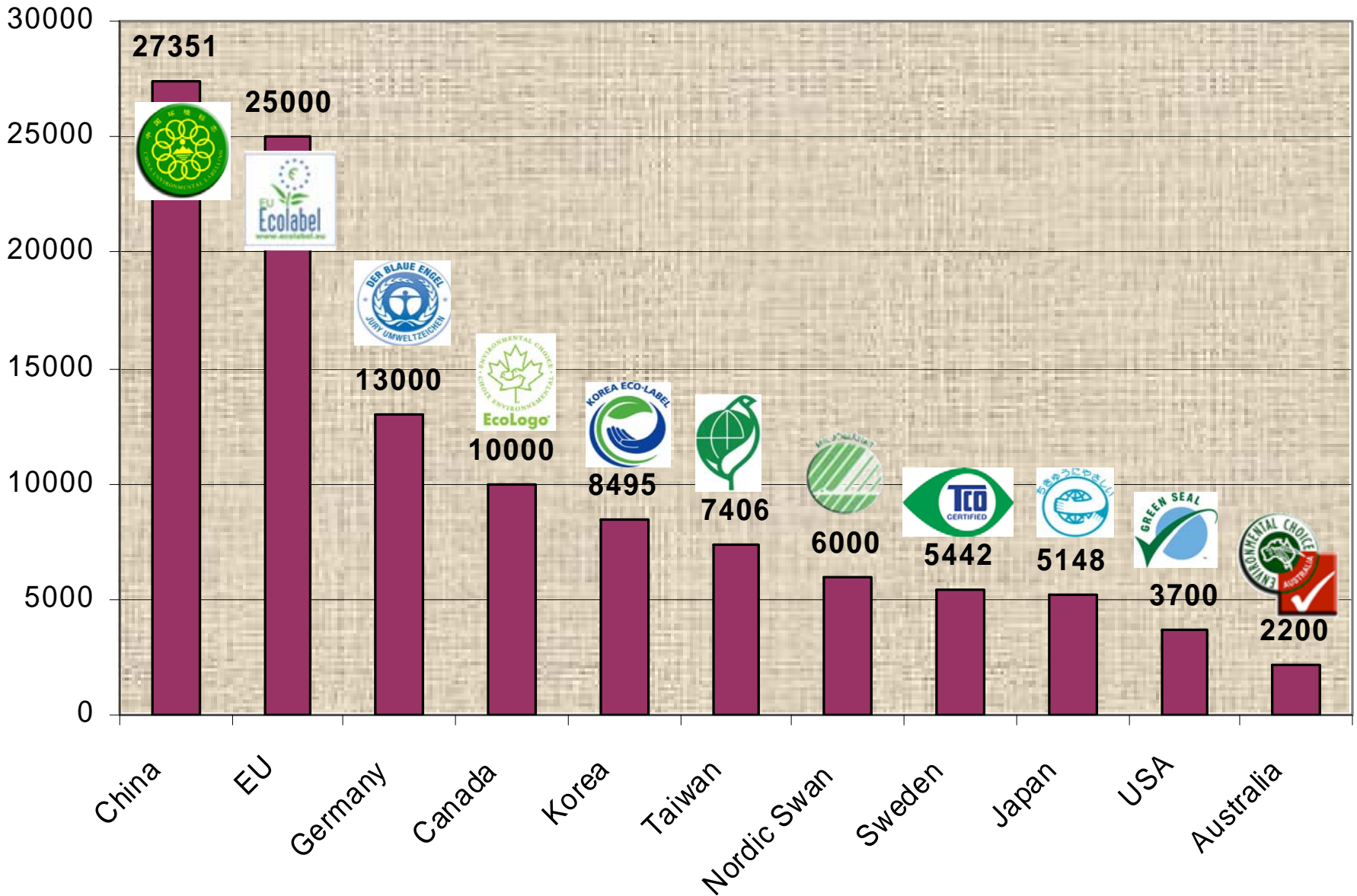
Israel

Only the **best products** can be awarded to use the logo;
Consumers may buy these products without doubt.

Number of Standards (2012)



Number of Certified Products (2012)



Type II Environmental Labels

- **Self declarations**
- **Environmental claims made for goods and services by the producer**



Fujitsu Group

Type III Environmental Labels

Electrolux



CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION FOR ER 8199B

Product description

The fridge/freezer ER 8199B is a low energy product with an energy consumption of 0.60 kWh/day. Inside, the refrigerator has glass shelves, one shelf for bottles. It also contains fruit/vegetable drawers and door shelves in transparent plastic. The freezer section contains four transparent drawers. The fridge/freezer contains a temperature display, a light alarm, and automatic defrost in the fridge section.

15% of the steel on the doors and cover is painted and 85% of the steel is powder coated. The metals are not surface-treated with Cd, Cr or Ni. The metal coatings contain no pigment or additives based on Cd, Cr, Pb or Hg or their compounds. The plastics do not contain Cd, Pb, Hg or their compounds.



	ER 8199B
Model	ER 8199B
Storage volume (fridge/freezer) ¹	193+95 liters
Width	595 mm
Height	2000 mm
Depth	600 mm
Energy efficiency class ²	A
Energy consumption ³	219 kWh/year
	0.60 kWh/day
Noise ⁴	40 dB(A)
Refrigerant	Isobutane R600a
Blowing agent	Cyclopentane

Material declaration

The weight of the product is 89 kg and consists of the materials:

Material content	
Metals	
• Steel	46%
• Copper	1%
• Aluminum	1.4%
Plastics	
• Insulation (Pur)	10.5%
• Other plastics	16%
• Other plastics	5.8%
Glass	17.1%
Compressors	0.4%
Blowing agent	0.2%
Refrigerant	0.6%
Electronic components	1%
Other	1%

Manufacturer

The product is manufactured by AB Electrolux in Mariestad, Sweden. The manufacturing plant is planning to implement the international environmental management system ISO 14001 certification in the year 2000. LCA data for the manufacturing plant in Mariestad covers 1997.

Contact person for the environmental declarations: Ann Spaak, Electrolux Hemprodukter AB.
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For more information about AB Electrolux see the Internet, www.electrolux.com

Environmental Performance Declaration

The environmental performance declaration is based on the results from life cycle assessment, LCA. The results from the LCA have been divided into three phases.

- The production phase
 - manufacturing of all materials,
 - transports of all these materials from suppliers,
 - production at the factory in Mariestad, where the main production processes are coating, foaming, metalwork and assembly.
- The consumer use phase
 - the time the product is used by the consumer
 - transport from manufacturing plant to consumer.
- The end-of-life phase
 - transports from consumer to disposal facility
 - scrap metal processes

Assumptions made for the analysis

The environmental information presented is based on the assumption that the product is manufactured and used in Sweden, using electricity produced in Sweden.⁵ Energy consumption for 17 years of use is presented in the results for the consumer use phase.⁶ The results are for the functional unit of one fridge/freezer. Electronic components are excluded in the life cycle assessment. The materials that are not followed from cradle to grave are hot melt and magnet strip.

	Production	Consumer use	End of life (Sv)	Total
Non-renewable resources				
Material resources (kg)	252	8	0.006	260
Energy resources (kg)	12400	2070	0.057	14500
Renewable resources				
Material resources (kg)	1.24	98	0.081	99.3
Energy resources (kg)	10700	1650	-	12400
Energy consumption (kWh)	23100	3720	0.057	26800
Emissions				
Greenhouse gases (kg CO ₂ -eq)	225	103	69	397
Ozone-depleting gases (kg CFC-eq)	0	0	0	0
Acidifying gases (mol H ⁺ -eq)	70	4.3	2.9	77.2
Ground level ozone gases (kg POCP-eq)	0.094	0.026	0.17	0.29
Eutrophication compounds (kg O ₂ -eq)	5.4	0.9	0.8	7.1
Recyclable resources				
Materials (kg)	3.3	-	51	54.3
Energy (kWh)	-	-	244	244
Waste (kg)				
azardous waste	0.13	0.08	0.32	0.53
Overall waste	414	179	12	605

Waste for the recycling at the supplier is not included.



Sweden



Rep. of Korea



Eco Leaf (Japan)