

Eco Mark Product Category No.105

“Textile Products for Industrial Use Version2.7” Certification Criteria

—Applicable Scope—

Textile products for industrial use (belts, canvas, bags, packaging fabric, binding material, zips, oil absorbing materials, tatami mat materials, hoses, tobacco filters, synthetic leather base fabrics, electric materials, and automotive upholsteries, fiber materials for construction, etc.); “non-woven fabrics and felt of lace fabrics or non-woven fabrics”; “nets, fences and ropes of other fabricated basic textiles”, and “knit fabrics” of the “Japan Standard Commodity Classification” issued by the Ministry of Public Management, Home Affairs, Posts and Telecommunications.

Established: June 20, 2003

Term of validity: February March 31, 2015

Japan Environment Association

Eco Mark Office

NOTE: This document is a translation of the criteria written in Japanese. In the event of dispute, the original document should be taken as authoritative.

Eco Mark Product Category No.105

**“Household Textile Products Version2.7”
Certification Criteria**

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Certification Criteria

Since the establishment of Product Category No.105 “Textile Products for Industrial Use Using Recycled PET Resin” in 1997, the number of certified products has increased sharply.

This Eco Mark Product Category was reviewed in accordance with the life cycle concept incorporated by the Eco Mark Program in 1996 for the purposes of: including the development of a system for using, collecting, and recycling clothing made of recyclable textiles in the criteria, in addition to recyclable PET resins, thereby placing the point of focus from textiles to recycling for textiles; and also promoting the smooth development of a recycling-oriented society by the spread of recycled products.

Various chemical substances such as dyes and bleach are used on clothing products. Existing criteria of this Product Category have been recommending unbleached products, dye-free products, and products dyed by natural colors such as plant derivatives to reduce the use of chemicals. Considering the relationships between dyes and our health or the environment, however, special attention should be paid to processing agents such as formaldehyde. Therefore, review was made in terms of the handling of chemical substances in addition to the efficient use of resources.

2. Applicable Scope

Textile products for industrial use (belts, canvas, bags, packaging fabric, binding material, zips, oil absorbing materials, tatami mat materials, hoses, tobacco filters, synthetic leather base fabrics, electric materials, and automotive upholsteries, fiber materials for construction, etc.); “non-woven fabrics and felt of lace fabrics or non-woven fabrics”; “nets, fences and ropes of other fabricated basic textiles”, and “knit fabrics” of the “Japan Standard Commodity Classification” issued by the Ministry of Public Management, Home Affairs, Posts and Telecommunications.

Eco Mark Product Category No.123 “Building Products Using Recycled Material” (wall paper, shoji paper, etc.) and other product categories are classified according to functions. Fabrics of these categories are handled according to their respective criteria.

3. Terminology

Recycling	Material recycling. Herein, the term shall include chemically
-----------	---

	recycled fibers. Energy recovery (thermal recycling) shall not be included
Pre-consumer material	Waste diverted from the waste stream in the manufacturing process of high polymer products and synthetic fiber fabrics. However, this excludes wastes that are recycled in the same process (plant)
Post-consumer material	PET bottles and other synthetic high polymer products as well as synthetic fiber fabrics, which are products disposed after use. This include used packaging material
Unused fibers	Fibers consisting of cotton linter, staples produced during spinning, etc
Cotton linter	Short cotton linters that start to protrude from the plant four to twelve days after flowering.
Waste plant fiber	Fiber made from agricultural residue (such as stalks that are usually disposed, etc.) generated in harvesting and manufacturing process of crop.
Recycled fibers	Recovered fibers, recycled polymer fibers, or chemically recycled fibers. However, this includes fiber directly twisted from lint, cut lint, used clothing, etc., skipping the recovered fiber process. Products using them include tuft carpets directly twisted from non-woven fabric, sakiori, which is split-woven fabric made by splitting old rags into fibers, and weaving them, etc. (as of October 2005).
Recovered fibers	Fiber consisting of recovered wool materials including lint from spinning plants, cut lint from clothing plants, and used clothing, etc. (Here, sakiori (split-woven fabric), etc. are included.)
Recycled polymer fiber:	Fibers made of recycled resins using recovered flakes, or pellets, etc. of post-consumer and pre-consumer materials.
Chemically recycled fiber	Fibers consisting of polymers obtained through polymerization using monomers as raw materials that are obtained by depolymerizing used nylon or polyester products and pre-consumer materials
Recycled cloth	Faulty cloths found during inspection and cloths cut from used clothes and used cloths.
Ozone bleaching	A method for scouring and bleaching chemical fibers by applying oxidation bleaching action of ozone and having ozone react with fibers at lower temperatures than usual bleaching method.

4. Certification Criteria and Certification Procedure

4-1. Environmental Criteria and Certification Procedure

(1) The product shall meet either one of the following requirements: a, b, c, or d.

- a. The mass rate of unused fibers, recycled fibers, recycled cloth or waste plant fibers in the total mass of the entire product (which shall be of the mass of fiber portions, excluding small accessories such as buttons, zips, hooks and threads) shall meet the Standard Content Rate shown in Table 1. In addition, small

accessories using recycled materials may be included in the Standard Content Rate as the total mass rate of the entire product and the mass rate of the recycled fibers.

Table 1. Standard Content Rate of Fiber to Total Mass of Entire Product

Type of Fiber	Standard Content Rate	
Unused fibers	70% or over	
Recycled fibers	Recovered fibers	70% or over
	Recycled polymer fibers	50% or over For resin content, Recycled PET, recycled PE, Recycled PP, and other resin shall be 50% or over.
	Chemically recycled fiber	50% or over Recycled monomer content shall be 50% or over.
	If recycled polymer fibers and chemically recycled fibers are used in combination, the content rate according to the following formula shall satisfy the standard rate of 50%: $(A \times B + C \times D) / 100$ A = Weight percentage of chemically recycled fibers in the entire product B = Content rate of recycled monomers in the chemically recycled fiber C = Weight percentage of recycled polymer fibers in the entire product D = Content rate of recycled resins in the recycled polymer fiber	
	Others Fiber directly twisted from lint, cut lint, used clothing, etc., skipping the recovered fiber process	50% or over
Recycled cloth	100%	
Waste plant fiber	10%	

b. The fiber portion of products shall be made of 100% cotton (excluding buttons, zippers, hooks, thread and other small accessories, and polyurethane fibers (rubber thread) which are knitted with less than 10% of the total mass of the product etc. At the same time, the fiber portion shall be made of unbleached, hydrogen peroxide bleached or ozone bleached cotton without using florescent whitener. In addition, medicinal substances that can be used in non-bleaching and hydrogen peroxide bleaching shall be listed as follows. In ozone bleaching, use of medicinal substances shall be restricted to the minimum necessary, and overuse should be avoided

Table List of Medicinal Substances That Can be Used in Finish Processing Process

1. Without Starching	Usable: Hot liquid/citric acid, acetic acid/salt/enzyme (protease, lipase, amylase, cellulase, etc.)/negative and positive nonionic activators that have low impact and are biodegradable/gluconic acid soda, other organic chelators
----------------------	---

	2. Scouring/Bleaching	Usable: Hot liquid/enzyme (protease, lipase, amylase, cellulase, etc.)/citric acid, acetic acid/ negative and positive nonionic activators that have low impact and are biodegradable/gluconic acid soda, other organic chelators Calcined soda/hydrogen peroxide of 1.5% or lower (as fineness). Note, however, that removal should be done by enzyme or hot liquid, citric acid, and acetic acid and that no residue should remain in final fabric.
Unbleached (Scouring/bleaching are in different processes.)	1. Without Starching	Not stipulated.
	2. Scouring	Bleaching should not be performed. Usable in scouring: Hot liquid/enzyme (protease, lipase, amylase, cellulase, etc.)/citric acid, acetic acid/ negative and positive nonionic activators that have low impact and are biodegradable/gluconic acid soda, other organic chelators

c. The fiber portion of products shall be made of 100% natural fibers such as cotton, (excluding buttons, zips, hooks, thread and other small accessories and polyurethane fibers (rubber thread) which are knitted with less than 10% of the total mass of the product etc). At the same time, products shall be organically grown material.

d. Products shall be recovered and recycled after use. The applicant shall have a mechanism for collecting and recycling unwanted used products. Portions of products that cannot be recycled shall be subject to energy recovery by an eco-friendly method. In addition, the product body shall carry indication that it will be recovered and recycled, and contact information, if a user requests for recovery. If the information can be easily disseminated because a sale destination is specified, etc., the indication in a catalog or web page, etc., may replace this requirement.

[Certification Procedure]

For the options a, b, and c, a raw material certificate issued by a spinning company shall be submitted (For b, used medicinal substances shall be reported. In the case of ozone bleaching, used amount of medicinal substances shall also be reported. For c, a certification issued by a qualified organization at a place of cotton production and an invoice, packing list, or delivery slip to be issued when a transaction is made shall be attached. Refer to Interpretation A-8.) However, if an eco-mark certified product is used as clothing fabric, a description of a “brand name”, “certification number” and “type” of the clothing fabric in the attached certificate can replace a raw material certificate.

For the option d, as a justification that the system for collection, recycling or energy collection in harmony with the environment, which are provided on a

separate sheet, has been established (collection system, treatment capacity, description of treatment, product design that makes recycling easy, etc.), a copy of certification document issued by Extended authorization system shall be submitted. In addition, an indication for publicizing collection shall be submitted (indication of environment information in the lower part of the eco mark, name of a contractor who uses the eco mark, indication of a certification number, etc.).

- (3) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
 - 1) List of the Environmental Laws, etc. related to the area where the plant is located;
 - 2) Implementation system (organizational chart with roles, etc.);
 - 3) Bylaws stipulating retention of recording documents;
 - 4) Recurrence prevention measures (future preventive measures);
 - 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

- (4) Adequate consideration shall be given so that various processing of products (mildew proofing, fluorescent whitening, softening, sanitation, product bleaching) is limited to a necessity minimum, products will not be subjected to excessive processing, and that use of any processing agent that is suspected to affect safety to human body should be refrained voluntarily. In addition, fire-retardant shall not be used on any product other than flame-proofed goods and flame-proofed

products. In addition, use of a fire-retardant shall be limited to a necessity minimum, and fire-retardants of PBB (polybrominated biphenyl), PBDE (polybrominated diphenyl ether), and short-chain chlorinated paraffin (the number of chained C is 10 to 13 and contained chloride concentration is 50% or over) shall not be included. In addition to the above consideration to processing, wool products shall also conform to Ordinance No. 34 of the Ministry of Health and Welfare on use and processing of dieldrin/DTTB (30ppm or lower) (Refer to Exhibit 1.).

[Certification Procedure]

Whether or not a product has been processed shall be indicated in the Attached Certificate. If it has been processed, according to the Attached Certificate, a type(s) of and used amount of a processing agent(s), etc. shall be reported. For wool products, use of or processing with dieldrin/DTTB shall be described. If a product has been processed, conformance with Ordinance No. 34 of the Ministry of Health and Welfare should be explained.

- (5) The content of formaldehyde in a product shall be 300ppm or less. This item is not applied to products installed outdoors.

Name of substance	Target products			Test method
	for infants (under 24 months old) diapers, etc.	Products likely to touch the skin (beddings, towels, and fabricated basic textiles for inner wear and underwear)	Other products (curtains, carpets, aprons, etc.)	
Formaldehyde	Not detected (16ppm or less)	75ppm or less	300ppm or less	Ordinance No. 34 of the Ministry of Health and Welfare

[Certification Procedure]

For content of formaldehyde in a product, test result by a third-party testing organization or an applying company itself shall be submitted.

- (6) For a dye to be used in a product, dyes defined in (1), (2), and (3) of the appendix 1 shall not be added as a prescription constituent. For any fiber other than sheep wool, a chromium series dye shall not be added as a prescription constituent.

[Certification Procedure]

A certificate issued by the manager of the plant where products are dyed shall be submitted.

- (7) Products shall not use resins made of halogens. (This item applies to resin fibers and post-processes and does not apply to coloring materials and fluorine-based additives).

[Certification Procedure]

Whether resins made of halogens are used shall be indicated in the Eco Mark Certification and Usage Application Form.

(9) Products shall not be disposable.

[Certification Procedure]

Whether the product pertains to the disposable product specified in Interpretation D-1 shall be described specifically in the attached certificate.

4-2. Quality Criteria and Certification Procedure

(10) The quality of products shall conform to JIS, corresponding industrial association standards or voluntary standards. Quality control shall also be adequately implemented in the manufacturing stage.

[Certification Procedure]

Certificates of compliance with the corresponding quality criteria shall be submitted. At the same time, certificates issued by the quality control manager of the product certifying that quality control was adequately implemented in the manufacturing stage.

5. Product Classification, Indication and Others

(1) Product shall be classified by brand name and by a, b, c or d prescribed in 4-1.(1). For products classified in a and have multiple models are taken as the same product classification if a difference in fiber content rate calculated using Table 1 is 20% or less.

(2) The following environment information shall be indicated below the mark. The location and details of the Eco Mark to be indicated shall be submitted when applying for Eco Mark product certification and use. The environmental information indicated shall be consisted of aligned to the left with one or two lines enclosed in a rectangular box.

-- omitted --

(3) Eco Mark shall be used according to Article 7 of the Eco Mark Usage Regulations separately prescribed based on the Guidelines for Eco Mark Program Implementation.

(4) In principle, products to be submitted for application shall be free of “flame retardant” and “antibacterial agent” materials, and shall not be labeled “biodegradable plastic”. When using these materials under special circumstances, however, the products shall satisfy the provisions contained in the “Guidelines for Eco Mark Program Implementation” concerning the indication of “flame retardant”, “antibacterial agent” and “biodegradable plastic”. Specifically, the use of these materials shall be described in the Application Form for Eco Mark Certification and

Usage with documents stipulated in the form to be attached.

Established: June 20, 2003 (Version2.0)

Revised: July 1, 2004 (Version2.1)

Revised: May 13, 2005 (Version2.2)

Revised: October 28, 2005 (Version2.3)

Revised: April 28, 2006 (Version2.4)

Revised: October 19, 2006 (Version2.5)

Revised: June 20 28, 2008 (Version2.6)

Revised: August 21 28, 2008 (Version2.7)

Period: March 31, 2015

The Certification Criteria for the Product Category will be revised when necessary.

Appendix 1

Criteria on Chemical Substances in Textile Products

The chemical substances listed below shall meet the conditions indicated under standard value for all concerned products.

For chemicals falling under No. 1, if the product is mildewproof-finished, the agent used for finishing shall be specified. For formaldehyde under No. 2, the results of the test for each different fabric prescribed by Ordinance No. 34 of the former Ministry of Health and Welfare (MHW) shall be submitted. For chemicals under No. 3, wool products require the submission of documents certifying compliance with MHW Ordinance No. 34 of the concerned product. Chemicals under No. 4, if the product is fireproofed, the agent used for finishing shall be specified and documents certifying that the product is fireproofed shall be submitted.

No.	Name	Standard value	Test Method	Concerned Products
1	Organic mercury compound Triphenyltin compound Tributyltin compound	Shall not be detected	MHW Ordinance No. 34	All products
2	Formaldehyde	300 ppm or less		All products (not applied to products installed outdoors)
3	Dieldrin DTTB	30 ppm or less	MHW Ordinance No. 34	All products
4	APO TDBPP Bis (2,3-dibromopropyl) phosphate compound	Shall not be detected	MHW Ordinance No. 34	All products

Source: Law for the Control of Household Goods Containing Harmful Substances

The following processes shall meet the conditions given under Precautions during Processing.

Processing	Precautions during Processing
Flame proof finishing	Minimize flame proof finishing to ensure that the finishing is not done excessively.
Softening	
Sanitization	Voluntarily refrain from use of agents whose safety to the human body is suspected.
Product bleaching	In planning bleached products, ensure their safety first.

Source: Notice No. 569, 1972, Director-General of the Fiber and Goods Bureau, MITI

Notice No. 289, 1973, Director-General of the Consumer Goods Industries Bureau, MITI

Notice No. 226, 1988, Director-General of the Consumer Goods Industries Bureau, MITI

The following dyes of lists (1), (2), and (3) shall not be included in products as prescribed constituents.

Fabrics other than wool shall not include chrome dyes as prescribed constituents.

- (1) Azo Dyes which may generate the following carcinogenic amines in degradation
(Products detected with over 30 mg/product kg of more than one of the following amines using analysis methods prescribed in the List of Public Test Methods based on Article 35 of the German Food and Commodities Law)

Carcinogenicity Rank (A1)		
92-67-1	4-aminobiphenyl	C1 (EU), 1(NTP, IARC)
92-87-5	Benzedrine	C1 (EU), 1(NTP, IARC)
95-69-2	4-chloro-o-toluidine	2A(NTP, IARC)
91-59-8	2-naphthylamine	C1 (EU), 1(NTP, IARC)
Carcinogenicity Rank (A2)		
97-56-3	o-aminoazotoluene	C2 (EU), 2B(NTP, IARC)
99-55-8	2-amino-4-nitrotoluene	3(NTP, IARC)
106-47-8	4-chloroaniline	C2 (EU), 2B(NTP, IARC)
615-05-4	2,4-diaminoanisole	2B(NTP, IARC)
101-77-9	4,4'-diaminodiphenylmethane	C2 (EU), 2B(NTP, IARC)
91-94-1	3,3'-dichlorbenzidine	C2 (EU), 2B(NTP, IARC)
119-90-4	o-dianisidine; 3,3'-Dimethoxybenzidine	C2 (EU), 2B(NTP, IARC)
119-93-7	o-tolidine; 3,3'-Dimethylbenzidine	C2 (EU), 2B(NTP, IARC)
838-88-0	4,4'-diamino-3,3'-dimethyldiphenylmethane	C2 (EU), 2B(NTP, IARC)
120-71-8	p-cresidine	2B(NTP, IARC)
101-14-4	4,4'-diamino-3,3'-dichlorodiphenylmethane	C2 (EU), 2A(NTP, IARC)
101-80-4	4,4'-diaminodiphenylether	2B(NTP, IARC)
139-65-1	4,4'-diaminodiphenylsulfide	2B(NTP, IARC)
95-53-4	o-toluidine	C2 (EU), 2B(NTP, IARC)
95-80-7	2,4-diaminotoluene	C2 (EU), 2B(NTP, IARC)
137-17-7	2,4,5-trimethylaniline	
90-04-0	o-anisidine	C2 (EU), 2B(NTP, IARC)
95-68-1	2,4-xylylidine	3(NTP, IARC)
87-62-7	2,6-xylylidine	2B(NTP, IARC)
60-90-3	4amino-azo-benzen	C2 (EU)

(2) Carcinogenic Dyes

569-61-9	C.I. BASIC RED 9	CI 42500	C2 (EU), 2B(NTP, IARC), Oeko-Tex
2475-45-8	C.I. DISPERSE BLUE 1	CI 64500	C2 (EU), 2B(NTP, IARC), Oeko-Tex
3761-53-3	C.I. ACID RED 26	CI 16150	2B(NTP, IARC), Oeko-Tex
6459-94-5	C.I. ACID RED 114	CI 23635	2B(NTP, IARC)
2602-46-2	C.I. DIRECT BLUE 6	CI 22610	C2, R3 (EU), 2A(NTP, IARC), Oeko-Tex
1937-37-7	C.I. DIRECT BLACK 38	CI 30235	C2, R3 (EU), 2A(NTP, IARC), Oeko-Tex
573-58-0	C.I. DIRECT RED 28	CI 22120	C2, R3 (EU), Oeko-Tex
	C.I. DISPERSE YELLOW 3	CI 11855	Oeko-Tex

(3) Skin Sensitizing Dyes

2475-46-9	C.I. DISPERSE BLUE 3	CI 61505	ETAD, Oeko-Tex
	C.I. DISPERSE BLUE 35		ETAD, Oeko-Tex

	C.I. DISPERSE BLUE 106		ETAD, Oeko-Tex
	C.I. DISPERSE BLUE 124		ETAD, Oeko-Tex
2832-40-8	C.I. DISPERSE YELLOW 3	CI 11855	ETAD, Oeko-Tex
730-40-5	C.I. DISPERSE ORANGE 3	CI 11005	ETAD, Oeko-Tex
	C.I. DISPERSE ORANGE 37		ETAD, Oeko-Tex
2872-52-8	C.I. DISPERSE RED 1	CI 11110	ETAD, Oeko-Tex
	C.I. DISPERSE BLUE 1	CI 64500	Oeko-Tex
	C.I. DISPERSE BLUE 7	CI 62500	Oeko-Tex
	C.I. DISPERSE BLUE 26	CI 63305	Oeko-Tex
	C.I. DISPERSE BLUE 102		Oeko-Tex
	C.I. DISPERSE ORANGE 1	CI 11080	Oeko-Tex
	C.I. DISPERSE ORANGE 76		Oeko-Tex
	C.I. DISPERSE RED 11	CI 62015	Oeko-Tex
	C.I. DISPERSE RED 17	CI 11210	Oeko-Tex
	C.I. DISPERSE YELLOW 1	CI 10345	Oeko-Tex
	C.I. DISPERSE YELLOW 9	CI 10375	Oeko-Tex
	C.I. DISPERSE YELLOW 39		Oeko-Tex
	C.I. DISPERSE YELLOW 49		Oeko-Tex

Source: International Agency for Research on Cancer (IARC)
National Toxicology Program (NTP)
EU Directive 76/769/EC
EU Directive 2002/61/EC
Ecological and Toxicological Association of the Dyes and
Organic Pigments Manufacturers (ETAD)
Oeko-Tex STANDARD 100

Appendix 2
Omitted

Attachment

Certificates on collection and recycling

For cases designated under “Extensive authorization system”, requirements (3) - (6) are considered to be met.

To commission the transportation and disposal of industrial waste, Waste Disposal and Public Cleansing Law shall be followed and certificates (3) - (6) below are required.

(1) Name of collection and recycling system**(2) Collection and recycling categories**

Material recycling/Chemical recycling

(3) Outline of collection and recycling systems (Based on actual operation of collection and recycling systems)

1) Finance

2) Collection assurance

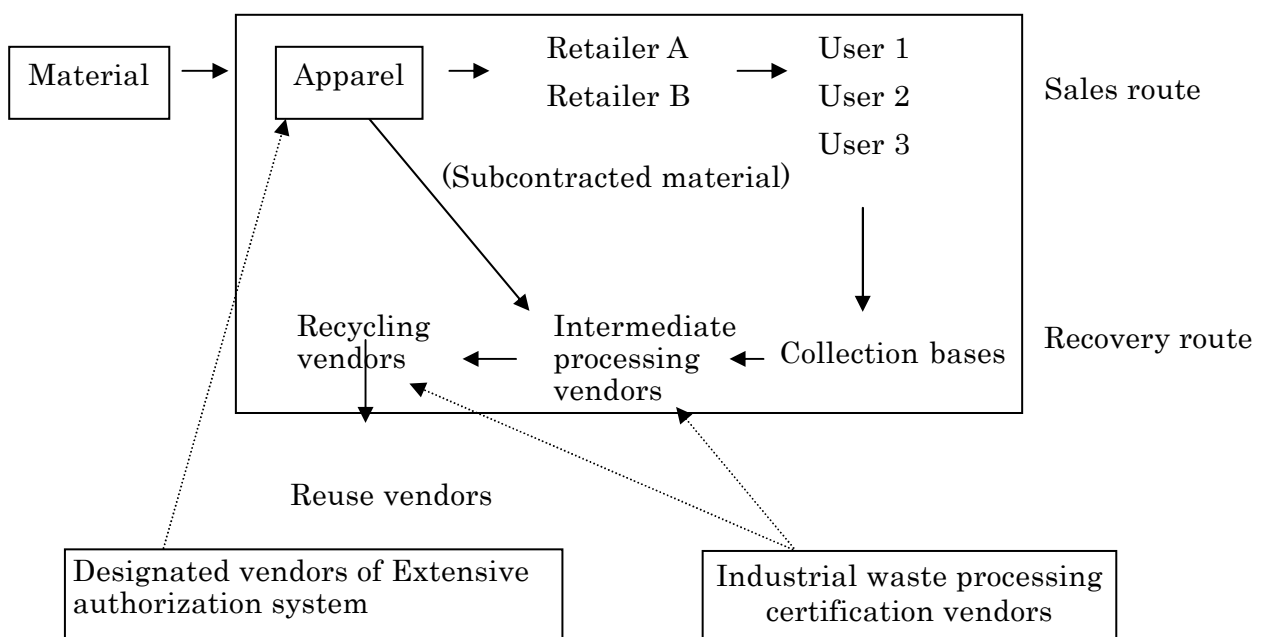
Example: Collection agreement with user, sewing of cloth label to product, etc.

3) Present operation of collection and recycling systems

Example: Products/materials applicable for collection and recycling (Natural fiber 100%, synthetic fiber mixture rate, etc.), Applicable regions of collection and recycling systems, Recovery rate (No. products recovered/No. products sold), Recycling rate (No. products recycled/No. products recovered), Recycling rate per product (Weight of parts recycled /product weight), collection ability, recyclability (No. tons/year), Re-production purposes, etc.

4) Overview of collection and recycling systems and relation with concerned entities

Example: Models of apparel subject to extensive recycling and reuse designation system



(4) Name of recycling vendors and waste disposal certification

Certificates indicating vendor name and waste disposal is allowed to concerned entities such as:

- 1) Waste disposal within own plant (Applicant)
- 2) Intermediate disposal vendor
- 3) Final disposal vendor

(5) Handing Over of Wastes to Recycling Vendors

Description should be given as to how products under application are discharged (industrial wastes, general wastes, valuable resources, etc.) and methods of handing over such products from waste disposer to recycling vendor should be explained.

(6) Submission of agreements

- 1) A copy of industrial waste disposal and collection and transportation contract
- 2) A copy of vendor contract (Contract between applicants and collection and recycling system providers)