EL175. Chairs

[EL175-2005/6/2012-126]

1. Scope

These criteria shall apply to the chair whose top board or sitting/back board uses synthetic resins, timber (including hardwood and plywood) and/or wooden materials and to chairs with a covered foam. However, products with separate certification criteria shall be excluded.

2. Definitions

2.1

“Wood waste” refers to the wood waste as stipulated in “Wood waste classification and recycling standard” in accordance with the enforcement regulations of the Waste Management Law.

2.2

“Wood materials" refer to the materials formed with timbers such as particle boards, fiber boards and edge glued panels.

2.3

“Particle boards” refer to the boards made of wood fragments, such as chips or shavings, which are formed and pressed into sheet form and bonded together with resin.

2.4

“Fiber boards" refer to the boards composed of plants fibers, such as timbers or chaffs. According to the density, they are categorized ‘into insulation boards (IB)’, ‘medium density fiber boards (MDF)’ and ‘hard boards (HB)’.

2.5

“Edge glued panels” refer to the glued processed timbers, such as small lumbered wood or wood layers, that are formed and pressed into sheet form in the direction of fiber, paralleled each other and bonded with resin.

2.7

"Ozone depletion potential (ODP)" refers to the value representing the relative impact of ozone depleting substances when the impact of CFC-11 to ozone depletion is set to be 1.

2.8

“Global warming potential (GWP)” refers to the value which indicates the relative effects of greenhouse gases when the effect of CO2 is set 1.

Note) GWP of a 100-year duration shall be applied in accordance with Second Assessment Report: Climate Change(2007) of IPCC(Intergovernmental Panel on Climate Change) in the criteria.

2.6

"Azo dyestuffs" refer to a general term of dyestuff employing Azo(-N=N-) as an initiator. They are the compounds that can be reduced into the following amines.

CAS No.	Amines	CAS No.	Amines
060-09-3	4-aminoazobenzene	101-14-4	4,4'-methylene-bis-(2-chloroanilene)
90-04-0	o-anisidine	101-77-9	4,4'-diaminodiphenylmethane
91-59-8	2-naphthylamine	101-80-4	4,4'-oxideaniline
91-94-1	3,3‘-dichlorobenzidine	106-47-8	p-chroloaniline
92-67-1	4-aminodiphenyl	119-90-4	3,3‘-dimethoxybenzidine
92-87-5	benzidine	119-93-7	3,3'-dimethylbenzidine
95-53-4	o-toluidine	120-71-8	p-cresidine
95-69-2	4-chloro-o-toluidine	137-17-7	2,4,5-trimethylaniline
95-80-7	2,4-toluylenediamine	139-65-1	4,4'-thiodianiline
97-56-3	o-aminoazotoluene	615-05-4	2,4-diaminoanisole
99-55-8	2-amino-4-nitrotoluene	838-88-0	3,3'-dimethyl-4,4'-diaminodiphenylmethane

2.7

"Ozone depletion potential (ODP)" refers to the value representing the relative impact of ozone depleting substances when the impact of CFC-11 to ozone depletion is set to be 1.

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“Global warming potential (GWP)” refers to the value which indicates the relative effects of greenhouse gases when the effect of CO2 is set 1.

Note) GWP of a 100-year duration shall be applied in accordance with Second Assessment Report: Climate Change(2007) of IPCC(Intergovernmental Panel on Climate Change) in the criteria.

2.9“Synthetic Resin Sheet" refers to synthetic resin decoration sheet or interior sheet used for surface decoration or finishing of the product.

2.10

“Decoration Sheet” refers to a synthetic resin sheet which has no layer of glue that is mostly used as the surface finish material of interior construction material, furniture, and electrical appliances. However, thermo setti ng sheet including melamine resin shall be excluded.

2.11

“Interior Sheet” refers to synthetic resin adhesive sheet applied with adhesives on one side of the product that is mostly used as interior finishing material of buildings.

2.12

“VOCs (volatile organic compounds)" refers to the liquid or solid organic compounds volatilized into the atmosphere under certain temperature and pressure conditions.

2.13

VOCs content refers to the mass per unit volume of the volatile organic compound in adhesives measured under defined conditions.

Note) In these criteria, all organic compounds whose boiling point is 250℃ or below shall be tentatively defined as VOCs.

3. Certification criteria

3.1 Environmental criteria

3.1.1

With respect to the resource consumption in the manufacturing stage, and the recyclability in the disposal stage, the product shall satisfy the following criteria.

3.1.1.1

The materials used in a product shall satisfy the following criteria.

	Criteria
Leather	Leather used as chair material shall be produced from raised animal skin.
Metal	The non-rotational chair shall consist of separable materials of 3 types.
	The sitting part (including armrest) of the rotational chair shall consist of separable materials of 2 types.
Wood Materials	

Note1) However, those metal parts used for assembly such as screw, nut, bolt, and hinge shall be excluded

Note2) However, that those metal parts used for assembly, e.g., screw, nut, bolt, hinge, and whose particular property or mechanical intensity is specified, e.g., spring for moving back plate back and forth, shall be excluded.

3.1.1.2

In the case that wooden materials are used in a product, the usage of waste wooden materials shall satisfy the following criteria.

Wooden material type	Particle board	fiberboard	Other plastic wood
Waste wood usage [wt%]	≤70	≤30	≤70

3.1.2

With respect to the use of chemical materials and the emission of hazardous substances in the stage of use, the following criteria shall be satisfied.

3.1.2.1

The cover which accounts for 10 percent or more of thearea of a product shall satisfy the following criteria.

a) The hazardous elements of the fabrics used for the back plate surface and sitting part (including armrest) shall satisfy the following requirements:

Item		Synthetic leather	Leather	Textile
Formaldehyde [mg/kg]		≤75	≤150	≤20
Chlorophenols [mg/kg]	PCP (pentachlorophenol)	≤0.5	≤0.5	≤0.05
	TeCP(2,3,5,6-tetrachlorophenol)	≤0.5	≤0.5	≤0.05
Harmful substancce [mg/kg]	Lead (Pb)	≤1.0	≤1.0	≤0.2
	Cadmium(Cd)	≤0.1	≤0.1	≤0.1
	Total chromium (Total Cr)	≤2.0	-	≤1.0
	Hexavalent chrome (Cr^{6+})	-	≤3.0	≤0.5
	Arsenic (As) Note1)	≤1.0	≤1.0	≤0.2
	Mercury (Hg) Note1)	≤0.02	-	≤0.02-
Organic tin compounds (TBT) [mg/kg] Note2)		≤1.0	-	≤0.5-
Azo dyes[mg/kg] Note3)		≤30	≤30	≤30
Polyurethane artificial leather DMF(dimethylformamide) [mg/kg]		≥ 10	-	-
Dimethylfumarate [mg/kg]		≥ 0.1	≥ 0.1	-

Note 1) apply to only natural fibers
Note 2) apply to only synthetic fibers and synthetic resins
Note 3) apply to only dyed

b) When chemicals are used at the manufacturing stage, e.g., using foam synthetic resin as cushion material for the chair, a foaming agent with zero ODP and GWP of 3000 or less shall be used.

3.1.2.2

With respect to synthetic resin sheets used on the surface of a product, products using the material that has obtained the Eco-Label certification for Decorative Synthetic Resin Sheet (EL252) among certification standards by Eco-Label products shall be regarded as a proper one. In addition, 3.1.1.2~3.1.1.4 of 3.1 of the 3.1.1 Environmental Standards for Decorative Synthetic Resin Sheets (EL252) shall be satisfied.

3.1.2.3

The paint used on the surface of the chair shall comply with any one of the following with respect to harmful elements.

a) The sum of lead(Pb), cadmium(Cd), mercury(Hg), and hexavalent chromium(Cr^{6+}) included in the paint shall be below the weight percentage{1000 mg/kg} of 0.1.

b) The harmful elements included in the non-volatilized amount of used paint shall comply with the following requirements.

Item	Pb	As	Cd	Sb	Ba	Cr	Hg	Se
Criteria [mg/kg]	≤ 90	≤ 25	≤ 75	≤ 60	≤ 500	≤ 60	≤ 60	≤ 500

c) The product shall use paint that is obtained the certification of environmental certificate of 'Paint (EL 241).'

3.1.2.4

Nickel emission of the metal part excluding screws, bolts, and hinges shall be below0.5 ㎍/㎠·week. However, the products with a coat of paint shall be excluded.

3.1.2.5

The synthetic resins (excluding synthetic resin sheets) used in a product shall satisfy the following criteria.

a) As the material of a product, chlorine synthetic resins, including polyvinyl chloride resin (PVC), shall not be used. However, synthetic resin components which can be separated easily by normal tools shall be excluded.

b) As a flame retardant, polybrominated biphenyls (PBBs), polybromodiphenyl ethers (PBDEs) and tetrabromobisphenolA (TBBPA) shall not be used.

Note) After conducting a test for total bromine (Br) content, if the content of Br is 30mg/kg or less, the material shall be regarded as satisfing this standard.

c) Lead (Pb) and cadmium (Cd) contained in resin of 25g or above shall satisfy the following standard.

item	Lead (Pb)	Cadmium (Cd)
Criteria [mg/㎏]	≥50	≥0.5

3.1.2.6

As preservatives for wooden materials (including hardwood and plywood) used in a product, the following substances shall not be used.

a) Any substance that comes under the Extremely Hazardous (class 1a) and Highly Hazardous (class 1b) in the classification of hazardous preservatives by the World Health Organization (WHO)

b) Active materials based on organotin compound or creosote oil

3.1.2.7

Adhesives used to affix a cover to foam or foam to a structure shall satisfy the following criteria. However, Eco-Label certified products (EL251, Adhesives) shall be regarded as satisfying the criteria.

a) Phthalate plasticizers shall not be used.

b) Alkylphenol ethoxylates (APEOs) and organotin compounds (TBT, TPT) shall not be used.

c) The content of volatile organic compounds (VOCs) shall be 0.1 weight% or below.

3.1.3

With respect to the pollutant emission in manufacturing stage, the wooden materials or the wood(including hardwood and plywood)constituting the chair shall satisfy the following criteria.

3.1.3.1

With respect to the formaldehyde emission amount of the wooden materials or the wood, it shall be complied with the following requirements. However, in case of using the product certified by "Recycled wood products (EL723)" of Korean Eco-mark certification criteria, it is considered as satisfying this requirement.

a) According to Desiccators test, the emission of formaldehyde from the wood or wooden materials shall be not more than 0.5mg/L.

b) According to Small Chamber test, the emission of formaldehyde after 7 days from the wood or wooden materials shall be not more than 0.12mg/㎡·h.

3.1.3.2

With respect to the VOCs emission of the wooden materials or the wood , the product shall satisfy one of the following requirements.

a) All the surface of the wooden material or the wood constituting the product shall be packaged to prevent the emission of VOCs, and in particular, the remaining part excluding the girth of the wooden materials or the wood shall be packaged with interior sheets which has obtained environmental mark certification of 'Decorative Synthetic Resin Sheet (EL252)' among certification standards by Eco-label

products or thermosetting resin sheets such as melamine sheets. However, in case part of the surface is exposed for assembly using screws, it shall be excluded.

b) The emission of VOCs after 7 days according to Small chamber test shall be not more than 0.4mg/㎡·h and Toluene shall be not more than 0.080 mg/㎡·h.

c) The product shall use materials that have obtained environmental mark certification for 'wood forming product (EL723)' among the certification criteria by products for environmental mark. However, cases where the surface of the wood forming products which has obtained environmental mark certification is finished using separate material shall be excluded.

3.1.3.3

The amount of VOCs, toluene and formaldehyde emitted from the cover or foam which accounts for 10 percent of more of the area of a product after seven days shall satisfy the following criteria.

Item	VOCs	toluene	formaldehyde
Criteria [mg/m^2· h]	≥0.4	≥0.080	≥0.12

3.1.4

In the case of indicating the effect of final product on the indoor air, the emission after 7 days according to Full scale chamber test shall satisfy the following requirements.

Item	formaldehyde	VOCs
Criteria [㎍/㎥]	≤ 30	≤ 250

3.1.5

The consumption of resources in the stage of use and disuse shall satisfy the following criteria.

3.1.5.1

In the stage of use, with respect to the service life of a product that affects the consumption of resources, parts with the same color and equivalent or higher performance as any replaceable part of the product shall be provided.

3.1.5.2

In the stage of disuse, with respect to the recyclability of a product, the synthetic resin of 100g or more used in the product shall be provided with the material classification label on each separable part of the product so that such parts can be readily separated and collected in the stage of disuse.

3.2 Quality criteria

3.2.1

The quality of the fabric used in the seat section (including arm rests) and the back section shall satisfy the following criteria.

Test item		Artificial leather	Natural leather	Fabric & knitted work
Color fastness to light [Grade]		≤3	≤3	≤3
Color fastness to rubbing [Grade]	Dry condition	≤4	≤3	≤4
	Wet condition	≤3	≤2	≤3
	Perspiration test	-	≤2	≤3
Color fastness to water [Grade]	Change in color	≤4	-	≤4
	Contamination	≤3	-	≤3
Tensile strength [N]	Length	≤147	≤10	≤300
	Width	≤78	≤10	≤300
Tear strength [N]	Length	≤9.8	≤5	-
	Width	≤9.8	-	-
Splitting resistance [N]	Length	≤14.7	-	-
	Width	≤14.7	-	
Friction discoloration test		Grade 4	-	-
Tack-free test		No trouble on emulsion side	-	-
Grain crack test [N]		-	≤150	-

3.2.2 A product shall satisfy the furniture criteria of KC mark in accordance with the Quality Management and Safety Control of Industrial Products Act. However, the items with respect to (1) Environmental Standards shall be excluded.

3.2.3 A polyurethane foam shall have the apparent density of 16 kg/m^3 in accordance with KS M 6672 (Flexible urethane foam for cushion), and shall satisfy the Type 2 Standard for Compression Set.

3.2.4 Latex shall satisfy the criteria for compression set test, repeated compression test and hardness change in accordance with KS M 6549 (Latex foam rubber for cushion)

3.2.5 A product shall satisfy the relevant quality criteria in accordance with KS G 4215 (Office furniture – chairs). However, items with respect to (1) Environmental Standards shall be excluded.

3.2.6 In the case there are any national standards for the relevant product, it shall satisfy the quality or performance criteria of the relevant standards. Items with respect to 3.1 Environmental Standards shall be excluded, and in the case of the test for surface resistance against cold liquids, the 4+ week waiting period set forth in KS G ISO 421 may be skipped.

3.2.7

If no Korean Industrial Standards are available as a national standard of the product in question, it should satisfy the quality and performance criteria according to the following sequence. However, the items related to “3.1 Environmental Criteria” are excluded. Also, if the E-Mark Certification Criteria Setting Committee determines that the applying criteria are not reasonable considering the characteristic of the product, it should satisfy the standards that were modified by the committee (test item, test method, standards, etc.).

3.2.3.1 National standards other than Korean Industrial Standards.

3.2.3.2 Overseas national standards or international standards regarding the product quality in question.

3.2.3.3 Standards of the organizations at home and abroad that are referred by the current E-mark target product and certification standard.

3.3 Consumer Information

3.3.1

Guide for method of maintaining product and supply of replaceable parts.

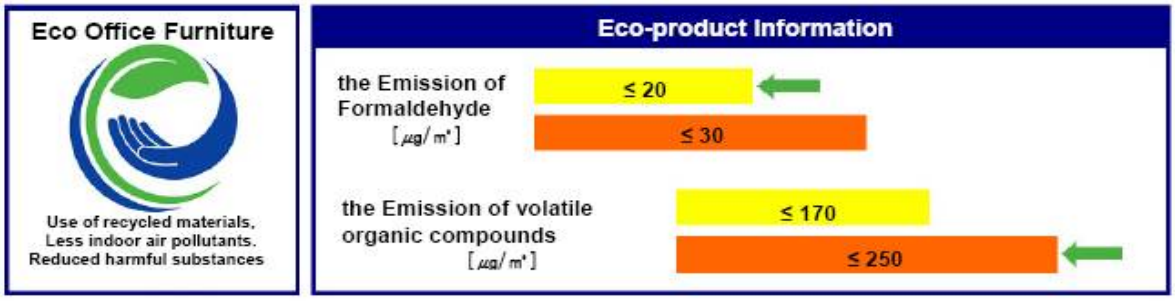
3.3.2

Indication of matters contributing to reasons (reduction of indoor air pollution, reduction of harmful substances) for the certification of relevant product at the stage of consumption.

3.3.3

In the case of indicating the effect of final product on the indoor air, the following ‘Detail information indication type’ of eco-label designs shall be used.

3.3.4 In disclosing the influence of the finished product on indoor air quality, the following ‘detailed information label’ of the Eco Label designs shall be used.



4. Test Methods

Certification Criteria				Test and Verification Methods
Environmental Criteria	3.1.1~3.1.2			Verification of submitted documents
	3.1.2	3.1.2.1	a)	Test report by an accredited testing laboratory in accordance with the following test methods ▪ Formaldehyde: KS K ISO 14184-1 [Textiles－Determination of formaldehyde－Part 1: Free and hydrolized formaldehyde (water extraction method)] ▪ Chlorination phenol: GC-ECD, HPLC ▪ Harmful elements: ICP, AAS[note1)] ▪ Hexavalent chromium: KS M 6902 (Quantitative analysis of chromium in leather and leather products) ▪ Organic tin compounds(TBT) : KS K 0737 (Test method for the determination of selected organotin compounds in textiles) ▪ Azo dye: leather and textile KS K 0147 (Arylamine test method for dye and dyed materials)[note2)] - Polyester KS K 0734(Arylamine content test method of polyester)[note3)] ▪DMF: KS M 0031 (General rules for gas chromatographic analysis) ▪ Dimethylfumarate: Annex 4 to the Safety Standards for the Self-Regulatory Safety Confirmation (Annex 4 – Textile products for children, B. Dimethylfumarate content test)
			b)	Verification of submitted documents

3.1.2.2		Verification of submitted documents and the test report by an accredited testing laboratory in accordance with b), c) and d) of (A) of the environment criteria of D. Test Methods of the Decorative Synthetic Resin Sheet (EL252)
3.1.2.3	a)	The test results of the officially recognized agency according to the following test method. ▪ Pb : KS M ISO 3856-1 (Paints and varnishes - Determination of “soluble” metal content - Part 1: Determination of lead content - Flame atomic absorption spectrometric method and dithizone spectrophotometry) ▪ Cd : KS M ISO 3856-4 (Paints and varnishes - Determination of “soluble” metal content - Part 4: Determination of cadmium content - Flame atomic absorption spectrometric method and electrolytic reaction analysis) ▪ Cr^{6+} : KS M ISO 3856-5 (Paints and varnishes - Determination of “soluble” metal content: Determination of hexavalent chromium content of the liquid paint or the paint in powder – Diphenylcarbazide) ▪ Hg : KS M ISO 3856-7 (Paints and varnishes - Determination of “soluble” metal content - Part 7: Determination of mercury content of the pigment portion of the paint and of the vanish portion of the paint - Non-flame atomic absorption spectrometric method)
	b)	Test report by an accredited testing laboratory in accordance with ISO 8124-3(Safety of toys – Part 3 : Elution of certain substances)
	c)	Verification of submitted documents
3.1.2.4		Verification of submitted documents and the test results of the officially recognized agency according to KS K 0853 (Test method for determination of nickel release from products intended to come into direct and prolonged contact with the skin: Alternate Exposure).
3.1.2.5	a)	Verification of submitted documents and Test report by an accredited testing laboratory in accordance with KS M 0024(General rules for infrared spectrophotometric analysis)
	b)	Test report by an accredited testing laboratory in accordance with the following test methods or equivalent test methods.

				▪ PBB, PBDEs: KS C IEC 62321 (Electro-technical products－Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers) ▪ TBBPA, HBCD: KS M 1072 (Determination of TBBPA and HBCD in polymer materials) ▪ Total Bromine (Br) : EN 50267-2-2:1999 (Common test methods for cables under fire conditions. Tests on gases evolved during combustion of materials from cables. Procedures. Determination of degree of acidity of gases for materials by measuring pH and conductivity); EN 14582 (Characterization of waste. Halogen and sulfur content. Oxygen combustion in closed systems and determination methods); and KS M 0180 (Standard test method for halogen (F, Cl, Br) and sulfur content by oxidative pyrohydrolytic combustion followed by ion chromatography detection (Combustion ion chromatography CIC)
			c)	Verification of submitted documents and test report by an accredited testing laboratory in accordance with KS M 0016 (General rules for atomic absorption spectrochemical analysis), KS M 0032 (General rules for ICP emission spectrochemical analysis) or KS C IEC 62321 (Electro-technical products Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers)
		3.1.2.6		Verification of submitted documents field inspection
		3.1.2.7	a)~b)	Verification of submitted documents

			c)	Test report by an accredited testing laboratory in accordance with KS M ISO 11890-1 (Paints and varnishes – Determination of volatile organic compound (VOC) content – Part 1: Different method) or KS M ISO 11890-2 (Paints and varnishes – Determination of volatile organic compound (VOC) content – Part 2: Gas-chromatographic method).
	3.1.3	3.1.3.1	a)	Test report by an accredited testing laboratory in accordance with KS F 3200(Fiber boards) or equivalent test method.
			b)	Test report by an accredited testing laboratory in accordance with the following test method or the equivalent method with it ▪ KS M ISO 16000-9(Indoor air - Part 9: Emission measurement method of volatile organic compounds - Emission test chamber method) and KS M ISO 16000-4(Formaldehyde measurement method - Diffusion sampling method) ▪ Indoor air quality process test method (pollutants emission construction materials test method)
		3.1.3.2	a)	Verification of submitted documents and on-site investigation
			b)	Test report by an accredited testing laboratory in accordance with the following test method or the equivalent method with it ▪ KS M ISO 16000-9(Indoor air - Part 9: Emission measurement method of volatile organic compounds - Emission test chamber method) and KS M ISO 16000-6(VOCs measurement in the air of indoor and chamber by the gas chromatography with sampling active specimen on the solvent TENAX TA, heat desorption, and MSD/FID) ▪ Or Indoor air quality process test method (pollutants emission construction materials test method)
			c)	Verification of submitted documents

		`3.1.3	Test report by an accredited testing laboratory in accordance with the following test method or the equivalent method with it Cover: ISO 16000-9 (Indoor air -- Part 9: Determination of the emission of volatile organic compounds -- emission test chamber method) and ISO 16000-3(Indoor air – Part 3: determination of formaldehyde and other carbonyl compounds – Active sampling method) note4) FORM: ▪ ISO 16000-9 (Indoor air -- Part 9: Determination of the emission of volatile organic compounds -- emission test chamber method) and ISO 16000-6 (indoor air - Part 6: Determination of volatile organic compounds in indoor and chamber air through active sampling on TENAX TA sorbent, thermal desorption, and gas chromatography using MSD/FID) note4)
		3.1.4	Test report by an accredited testing laboratory in accordance with KS I 2007 (Determination of the emission of formaldehyde and volatile organic compounds from furniture and building related products Large chamber method) or test report using equivalent test method Note4)
		3.1.5	Verification of submitted documents
Quality Criteria		3.2.1	Test report by an accredited testing laboratory in accordance with the following test method ▪ Color fastness to light: KS K 0700(Test method of the color fastness to light of the dyed goods: Carbon arc method) or KS K ISO 105-B02 (Textiles - Tests for colorfastness - Part B02: Colorfastness to artificial light: Xenon arc fading lamp test) ▪ Color fastness to rubbing: - Natural leather: KS M ISO 17700 (Footwear – Test methods for uppers, linings and insocks – Color fastness to rubbing) - Fabric and knit: KS K 0650 (Test method for color fastness to rubbing: Crock meter method)▪ Color fastness to water: KS K ISO 105-E01 (Textiles – Tests for color fastness – Part E01: Color fastness to water)

		▪ Tensile strength, tear strength and splitting resistance - Artificial leather: KS M 3601 (Polyvinylchloride coated fabric) - Natural leather: KS M 6882 (Testing method for leathers) - Textiles – KS K 0521 (Textiles) - Knitted fabrics: KS K 0815 (Knits, grab method) ▪Friction decolorization test and tack-free test: KS M 3601 (Polyvinylchloride coated fabric) ▪Grain cracking test: KS M ISO 3379 (Leather – Determination of distension and strength of grain – Ball burst test)
	3.2.2	Test report by an accredited testing laboratory in accordance with the relevant Safety Standards for the Self-Regulatory Safety Confirmation or the certificate of standards equivalent or higher
	3.2.3	Test report by an accredited testing laboratory in accordance with KS M 6672 (Flexible urethane foam for cusion)
	3.2.4	Test report by an accredited testing laboratory in accordance with KS M 6549 (Latex foam rubber for cusion)
	3.2.5	Test report by an accredited testing laboratory in accordance with KS G 4215 (Office furniture – chairs) or the certificate of standards equivalent or higher
	3.2.6~3.2.7	Test report by an accredited testing laboratory in accordance with the corresponding standard or certificate of equivalent
Consumer Information		Verification of submitted documents

Note1) Extraction of sample solution by the artificial perspiration liquid: ISO 105-E04(Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration)

Note2) Apply for the general fiber

Note3) Apply for the polyester fiber

Note4) The test sample to be put into the test chamber shall be made into a regular hexahedron, and installed so that all six sides of the test sample is exposed at the center of the test chamber. However, in the case where it is difficult to make the test sample into a regular hexahedron, make it into a rectangular parallelepiped with maximum height and the same horizontal & vertical length. When you make this, make sure the sample load factor(value dividing the surface area of the test sample by the size of the test chamber) is 2.0±0.5 ㎡/㎥.

4.1 General Matters

4.1.1

One test sample shall be required for each applied product. However, in case that more than one test is needed, it shall not be required.

4.1.2

Test samples shall be collected at random by a commissioned Eco-Label certification agency from products in market or those in storage at the production site.

4.1.3

Test result shall be numerically set according to KS Q 5002 (Statistical interpretation method of the data – Part 1: Statistical description of the data).

5. Reasons for Certification

“Reduced harmful substances, recycling of effective resources (relevant products only)

Reduction of indoor air pollution (limited relevant products)"

Common Criteria, Notice No. 2012-36, the Ministry of Environment

1. Eco-label products must follow the following provisions with regard to the proper treatment of environmental pollution substances, such as air and water wastes and noxious chemical substances emitted in the process of manufacturing or service operation.

A. When first applying for certification, the product manufacturer should observe the environment related laws and agreements pertaining to the region where the production factory or the place of service operation is located for a period of one year prior to the date of application. Any case of violation of the penalty clause will be verified by confirming documents involved during a period of one year to the date of application. Regarding any violation not related to the penalty clause, confirmation will be made on the completion of appropriate measures.

B. A person who has received a certification of eco-labeling shall observe the environment related laws and agreements pertaining to the region where the production factory or the place of service operation is located during the period of certification. However, regarding any violation besides a penalty, confirmation will be made on the completion of appropriate measures.

2. As a general rule, information for consumers shall be indicated on the surface of the product in such a way not to be easily erased. However, in case that indication on the surface of the product is impossible or undesirable, it can be indicated on the appropriate part such as product packaging, product guidebook and user's manual that consumers can recognize. However, the service information should be indicated inside and outside of the place of service operation. In case that indication inside and outside of the place of service operation is impossible or undesirable, it can be indicated on the appropriate part such as an agreement, letter of delivery, letter of guarantee, and PR materials that consumers can recognize.

3. In order to establish fair trade and to protect consumer, the applicant for eco-label and the holder of eco-label license shall observe the Act on the Fairness of Indication and Advertisement with respect to the environmental aspects of the product.
4. For Various standards referred in the certification criteria by target product, the latest revised edition applies at the date of application, if not specified otherwise.

5. In applying the quality related criteria for each target product, if no standard is available that can be applied as the quality criteria, the president of Korea Environmental Industry & Technology Institute (KEITI) (hereafter referred to as "president of KEITI") may establish and operate the quality criteria for the product involved after review by a competent committee.