

Hong Kong Green Label Scheme

Product Environmental Criteria for

Wall Coverings (GL-008-003)



BACKGROUND

The Hong Kong Green Label Scheme (HKGLS) is an independent and voluntary scheme, which aims to identify products that are, based on life cycle analysis consideration, more environmentally preferable than other similar products with the same function. The Scheme is organized by the Green Council (GC) with contributions from the HKGLS Advisory Committee and a number of supporting organizations.

The prime objectives of HKGLS are:

- For Consumers: assist in making purchases of products that are less harmful to the environment;
- For Industry: stimulate development and production of environmentally preferable alternatives.

This specification sets out the requirements that wall coverings will be required to meet in order to be licensed to use the HKGLS label. The requirements include environmental criteria and product characteristics. The specification also defines the testing and other means to be used to verify conformance with the environmental criteria and product characteristics.

POTENTIAL ENVIRONMENTAL IMPACTS

The key environmental impacts of wall covering relate to discharges during the production of paper and textiles, and further in the coating and printing processes during production of wall coverings.

In the production of pulp and paper, the environmental impacts include both gas emissions (e.g. SO₂, NO_x etc) and effluent discharges (e.g. COD, phosphorous etc). The use of chemicals that may be harmful to the environment also imposes an adverse effect on the environment. The environmental impacts in the printing and coating processes mainly associate with the use of chemicals.

LABEL OBJECTIVE

The aim of the environmental criteria developed for wall covering materials is to :

- Discourage use of chemicals or other substances that are harmful to the environment;
- Promote waste avoidance and conservation of resources; and
- Conserve landfill space and promote the concept of recycling.

PRODUCT DEFINITION

This document and all product environmental criteria therein apply to products comprising finished wall coverings in roll form where paper is the foundation layer. Finished wall covering is defined as wall covering that does not require further processing or painting.

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PRODUCT ENVIRONMENTAL CRITERIA

The table below sets out the product environmental criteria for wall coverings (GL-008-003) under the HKGLS.

It is noteworthy that the criteria do not impose any requirements in regard to the disposal of used wall covering even though this represents an environmental problem. The reason of non-inclusion is that the product manufacturer in general has no means to influence the way in which the wall coverings are disposed of.

The product in application shall comply all statutory safety and fire protection requirements.

Product Environmental Criteria	Verification Methods*
<p>1. Wall covering made of paper:</p> <ul style="list-style-type: none"> • At least 50% recycled fibers ¹, including 20% post-consumer² content; or • For virgin wood fibers, it shall originate from sustainable source with certification on chain of custody 	<p>✓ Inspection of product samples; AND</p> <p>✓ Review of supporting information; AND</p> <p>✓ Performance of on-site factory visit.</p> <p style="text-align: center;">Noted 1</p>

¹ **Recycled fibers** refer to fibers collected from the conversion and consumer stages. Purchased broke and broke from own production is defined as new fiber (if the raw material is new fiber) and as recycled fiber (if the raw material is recycled).

² **Post-Consumer** refers to material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

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Product Environmental Criteria	Verification Methods*
<p>2. Wall covering made of fabrics:</p> <ul style="list-style-type: none"> • The quantity of chlorophenols shall not exceed 20 ug/kg fibre in textile materials used in wall covering; • The quantity of extractable organic halogens (EOX) shall not exceed 3 mg/kg fibre in textile materials used in wall coverings; • The quantity of heavy metals shall not exceed the following threshold values (in terms of mg/kg finished product): <ul style="list-style-type: none"> ◆ Arsenic – 0.2 ◆ Cadmium – 0.1 ◆ Chromium - 900 ◆ Chromium VI – 0.02 ◆ Cobalt - 900 ◆ Copper - 900 ◆ Mercury – 0.02 ◆ Nickel – 4.0 ◆ Tin – 4.0 ◆ Zinc - 60 	<ul style="list-style-type: none"> ✓ Review of laboratory test report(s); AND ✓ Review of supporting information. <p style="text-align: center;">Noted 2</p>
<p>3. Wall covering made of plastics:</p> <ul style="list-style-type: none"> • The product shall not contain chlorine-based plastics. 	<ul style="list-style-type: none"> ✓ Inspection of product samples; AND ✓ Review of supporting information;
<p>4. Coating, printing colour and/or adhesive:</p> <ul style="list-style-type: none"> • Shall not contain halogenated or aromatic solvents, organic tin, halogenated organic agents or halogenated organic flame-retardants. • Total content of lead, cadmium, chromium (VI) and mercury in the print colour shall not exceed 100 ppm. 	<ul style="list-style-type: none"> ✓ Review of laboratory test report(s); AND ✓ Review of supporting information. <p style="text-align: center;">Note 3</p>
<p>5. Emission of formaldehyde from the finished product shall not exceed 8 mg/100g finished product.</p>	<ul style="list-style-type: none"> ✓ Review of laboratory test report(s); <p style="text-align: center;">Note 4</p>
<p>6. Packaging requirements:</p>	<ul style="list-style-type: none"> ✓ Inspection of product samples;

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Product Environmental Criteria	Verification Methods*
<ul style="list-style-type: none"> • Packaging materials shall not contain chlorine-based plastics; • General packaging requirements (refer to criteria for packaging materials : GL-Packaging). 	<p style="text-align: center;">AND</p> <p>✓ Review of supporting information; AND</p> <p>✓ Interview with relevant personnel.</p>

*Analytical testing should be accredited and performed by laboratories that meet the requirement laid out in the IEC/ISO 17025 or EN45001 standards or any equivalent systems e.g. HOKLAS, CNAS. Under special situation and with the approval from GC, test can be performed by in-house method by the accredited laboratory or manufacturer.

Note:

1. Sustainable Certificate include: Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC), Canadian Standards Association (CSA) National Standard for Sustainable Forest Management, Sustainable Forestry Initiatives (SFI), Malaysian Timber Certification Council, Pan European Forest Certification Council, Lembaga Ekolabel Indonesia (LEI) and Finnish Forest Certification Scheme.

2. **Test Method:**

Chlorophenols: GC-ECD, HPLC or equivalent

EOX: USEPA Method 9023 or equivalent

Cobalt, Nickel, Copper, Zinc: USEPA 3050B or equivalent

Arsenic, Cadmium, Mercury: USEPA 3052 or equivalent

Chromium, Chromium VI: USEPA 3050B / 7199 & 7196A or equivalent

Tin: USEPA 6020 or equivalent

3. **Test Method:**

Heavy Metal: refer Note 2.

Halogenated Solvent: ASTM D4457 or equivalent

Aromatic Compounds: ASTM D3257 or equivalent

Organotin: ISO17353 or equivalent

Halogenated flame-retardants: US EPA 3540C/8081A/8082A/8270D/ US EPA 8270D/3540C/GC-MSD or equivalent

Halogenated solvent: Self-declaration with ingredient list and safety data sheets of ingredient.

4. Test Method:

Formaldehyde release of wallpapers: DIN EN 12149 or equivalent