

# Hong Kong Green Label Scheme

## Product Environmental Criteria for Flooring Materials (GL-008-002)



### 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 Green Council (GC) organizes the Scheme 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 flooring materials 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

Wastes of flooring materials, together with other construction wastes, are generated in tremendous quantity from demolition, renovation and other construction activities. The flooring wastes, if not being recycled, would have to be disposed of as waste. The disposal of flooring wastes burdens our environment through the utilization of the land use for storage, transportation process, and the consumption of the already very limited landfill space. Some flooring materials may also contain substances that are harmful to the environment.

### LABEL OBJECTIVE

The aim of the environmental criteria developed for flooring 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 that are laid on top of and underlying foundation of concrete or wood/beams and that has no structural function. The most common flooring products include (1) hard flooring, (2) resilient floorings, and (3) fitted carpets.

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**PRODUCT ENVIRONMENTAL CRITERIA**

The table below sets out the product environmental criteria for flooring materials (GL-008-002) under the HKGLS.

It is note worthy that criteria in relation to cleaning and maintenance of the floor have not been included even though there may be an environmental impact associated with this part of the life cycle of the product. The reason for this exclusion is that the product manufacturer in general has no means to influence the way in which the floor is cleaned or maintained. Nonetheless, HKGLS has developed separate criteria for detergents that may be used in cleaning floor.

Product Environmental Criteria	Verification Methods*
<p>1. The product shall not contain chlorinated/brominated paraffin, organic tin compounds, phthalates or polybrominated diphenylethers.</p>	<p>✓ Review of supporting information; AND ✓ Interview with relevant personnel.</p> <p>The applicant shall provide MSDS of all ingredient of products and a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company shall also be provided and showing compliance with the criteria</p>
<p>2. Cadmium, lead and mercury must not be actively used in the flooring product. Pollution in concentration up to 1mg/kg floor in case of cadmium and mercury and 10 mg/kg in case of lead is floor product.</p>	<p>✓ Review of supporting information; AND ✓ Interview with relevant personnel.</p>
<p>3. Discharge of Volatile Organic Compounds (VOCs) shall not exceed 500 ug/m<sup>2</sup>/hr of floor covering.</p>	<p>✓ Review of laboratory test report(s)(ASTM 5116-90); AND ✓ Review of supporting information.</p>

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Product Environmental Criteria	Verification Methods*
<p>4. Wood-based Flooring:</p> <ul style="list-style-type: none"> <li>• Emission of formaldehyde from the product shall not exceed 0.13 mg/m<sup>3</sup> of air.</li> <li>• Tropical rain-forest shall not be utilized in the product.</li> <li>• Raw materials of wood shall be derived from sustainable forests with certificates issued from the Forest Stewardship Council.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Review of supporting information; AND</li> <li>✓ Interview with relevant personnel.</li> </ul> <p>A written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company shall be provided. The statement shall supported with appropriate documentation, certificate, test reports and/or declarations indicating the test methods and results as above, and showing compliance with the criteria.</p>
<p>5. Recycled Flooring :</p> <p>Should the flooring product be a recycled roadbed material or a recycled hot asphalt mixture made from construction waste, the product shall contain at least 50% recycled aggregate made from construction waste.</p>	<ul style="list-style-type: none"> <li>✓ Review of supporting information;</li> <li>✓ AND</li> <li>✓ Interview with relevant personnel; AND</li> <li>✓ Performance of an on-site factory visit.</li> </ul>
<p>6. General packaging requirements (refer to criteria for packaging materials : GL-Packaging).</p>	<ul style="list-style-type: none"> <li>✓ Inspection of product samples; AND</li> <li>✓ Review of supporting information; AND</li> <li>✓ Interview with relevant personnel.</li> </ul>

\*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.