

# Hong Kong Green Label Scheme

## Product Environmental Criteria for

### Carpeting Modular (GL-008-005)



## 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 “carpeting modular” products will be required to meet in order to be licensed to use the HKGLS label. The requirements include product performance and environmental criteria. The specification also defines the testing needed to verify conformance with some of the requirements.

## POTENTIAL ENVIRONMENTAL IMPACTS

Major environmental impacts of carpets relate to emissions from product, toxicity of materials used in the production and waste generation which all need to be properly addressed.

Carpet has been identified as a contributor to indoor air pollution, particularly from adhesives used for installation. The chemical makeup of the carpet assembly can release Volatile Organic Compounds (VOCs) for 48 to 72 hours after installation, while adhesives, seam sealants, and carpet padding all contribute to VOC off gassing. Adhesives are generally the largest source of VOCs.

In carpet production toxic dyes may be used to produce the colors, which sometimes end up in streams. Topically (i.e. involving local application) applied mold-inhibiting chemicals with potential harm from their use are also a concern.

Carpet also poses waste management problems because old carpets have been typically disposed of in landfills, taking up valuable space due to its bulk, and wasting resources that could be reused or recycled. The USEPA has suggested that carpets take 50 years to decompose. Therefore the percentage of recycled content of carpets is an important consideration.

However, it is a common practice now to take back used modular carpet tiles and refurbish them in a process involving cleaning and redyeing of the carpets, restoring them to “like new” condition. These, in turn, can be recycled.

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**LABEL OBJECTIVE**

The aim of the environmental criteria developed for “carpeting modular” is to:

- Reduce the release of harmful emissions, including Volatile Organic Compounds (VOCs) arising from the carpets and adhesives.
- Reduce the use of toxic substances including dyes and mold-inhibitors during the production of carpets.
- Minimize waste production by requiring recyclability.

**PRODUCT DEFINITION**

This document and all product environmental criteria therein apply to all “carpeting modular”.

**PRODUCT CRITERIA**

The product performance and environmental criteria for the product category of “carpeting modular” (GL-008-005) under the

Hong Kong Green Label Scheme (HKGLS) are set out in this criteria document in the ensuing table.

Product Environmental Criteria	Verification Method(s)*
<p><b>PRODUCT PERFORMANCE CRITERIA</b></p> <p>1. The product shall meet the performance requirements of acceptable standards, including stain resistance, resistance to water, embedded dirt removal.</p>	<p>✓ Review of supporting information;</p>
<p><b>PRODUCT ENVIRONMENTAL CRITERIA</b></p> <p>2. Recycled content of backing – A post-consumer or post-industrial recycled content of at least 5% shall be included.</p>	<p>✓ Review of supporting information; AND</p> <p>✓ Performance of an on-site factory visit; AND</p> <p>✓ Interview with relevant personnel.</p>
<p>3. Emissions of Total Volatile Organic Compounds (TVOCs) shall not exceed 0.5 mg/m<sup>2</sup> per hour.</p>	<p>✓ Review of laboratory test report(s).<sup>1</sup></p>

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Product Environmental Criteria	Verification Method(s)*
4. The product shall be sold as removable tiles <i>preferably</i> using a peel and stick water-based adhesive.	✓ Review of supporting information <sup>2</sup> ; AND ✓ Interview with relevant personnel.
5. The product shall not be manufactured with topically applied biological inhibitors.	✓ Review of supporting information; <sup>3</sup> AND ✓ Interview with relevant personnel.
6. Dyeing process – The face fiber shall <i>preferably</i> be solution-dyed.	✓ Review of supporting information; <sup>4</sup> AND ✓ Interview with relevant personnel.
7. Reusability/Recyclability – The product shall be recyclable into either new carpet or other products, or shall be capable of being refurbished.	✓ Review of supporting information; <sup>5</sup> AND ✓ Interview with relevant personnel.

\*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. **Test Method of TVOC emission rates:** ASTM D5116 or equivalent
2. A declaration with authorized person signature showing compliance to the requirement and supporting information include the information of adhesive used shall be submitted.
3. A declaration with authorized person signature showing compliance to the requirement and all the chemical safety data sheets used on the product shall be submitted
4. A declaration with authorized person signature showing compliance to the requirement and the safety data sheets of dye used on the product shall be submitted
5. A declaration with authorized person signature showing compliance to the requirement and relevant supporting information (e.g. factory take back policy for recycling, etc.) shall be submitted