

Hong Kong Green Label Scheme
Product Environmental Criteria for
Building Products Using Natural Minerals (GL-008-011)



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 building materials made of natural minerals 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

Currently, the majority of building materials are made out of many synthetic and hazardous materials. These materials may cause significant adverse effects on human health and become polluted in our waste disposal facilities. By using natural minerals to produce building products encourages the reduction of toxic chemicals and usage of pure natural materials.

LABEL OBJECTIVE

The aim of the environmental criteria developed for “Building Products using Natural Minerals” is to:

- promote the use of natural minerals in building products
- reduce the discharge of toxic, hazardous or otherwise polluting substances, including heavy metals and asbestos, into the environment during production and use of the product

PRODUCT DEFINITION

This document and all product environmental criteria therein apply to building materials and auxiliary building materials that are made of natural minerals.

A natural mineral is an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes. The minerals used in production must be naturally occurring and have not undergone significant chemical or physical changes¹.

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PRODUCT CRITERIA

The product environmental criteria for the product category of “Building Products using Natural Minerals” (GL-008-011) under the Hong Kong Green Label Scheme (HKGLS) are set out in the ensuing table.

Product Environmental Criteria	Verification Methods*
<p>1. The percentage of natural minerals in the product shall be at least 25% of the product’s net weight.</p> <p>A detailed breakdown of ALL materials composing the product shall be provided</p>	<p>✓ Review of supporting information;</p> <p>✓ Proof of mineral source;</p> <p>✓ MSDS of mineral(s) used</p>
<p>2. Hazardous substances shall not be used as an ingredient of the product (whether as a substance or part of its production process).</p> <p>The levels of the following hazardous substances as impurities shall not exceed the following:</p> <ul style="list-style-type: none"> • Cadmium: 10 ppm • Lead: 300 ppm • Chromium VI: 10 ppm • Arsenic: 50 ppm • Mercury: 10 ppm • Selenium: 20 ppm 	<p>✓ Review of laboratory test report(s)²;</p>
<p>3. The product shall not contain asbestos (white, brown or blue asbestos).</p>	<p>✓ Review of laboratory test report(s)</p>
<p>4. E-glass and “475” glass fibres shall not be used for reinforcement.</p>	<p>✓ Review of supporting information</p>
<p>5. Production processes shall conform to relevant national or local environmental regulations on preventing air pollution and water contamination.</p>	<p>✓ Review of supporting information</p>

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Product Environmental Criteria	Verification Methods*
<p>6. The product should be inflammable to minimize the risk of fire hazard. (Only applicable to products with fire-proof claims)</p> <ul style="list-style-type: none"> • Must meet Class A Fire Resistance (China Classification) • Or any other international fire standard of the highest grade 	<p>✓ Review of laboratory test report(s)³</p>
<p>7. Instruction manual(s) shall accompany a product concerning its construction, use, disassembling, and preferably also disposal, and recycling.</p>	<p>✓ Review of supporting documents.</p>
<p>8. General packaging requirement (Refer to criteria for packaging materials: GL-Packaging).</p>	<p>✓ Inspection of product samples; ✓ Review of supporting information.</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. Natural Minerals such as: magnesium, perlite, phosphate, vermiculite, silica, other minerals and/or oxides are subject to approval of the Green Label Secretariat. This product environmental criteria only considers minerals that pose no threat to human health and negative environment impacts.

2. Test Methods:

Lead and Cadmium: USEPA 3051A/7000B

Chromium VI: USEPA 7196A

Arsenic: USEPA 3051A/7061A

Mercury: USEPA 3051A/7471B

Selenium: USEPA 3051A/7741A. Equivalent methods are acceptable.

3. Test Methods:

Fire Hazard Tests

GB 8624-2006: Classification for burning behavior of building materials and products

GB/T 5464-1999: Non-flammable test for construction materials

GB/T 14402-2007: Reaction to fire tests for building materials and products

ASTM E119-12: Standard Test Methods for Fire Tests of Building Construction and Materials