

Hong Kong Green Label Scheme

Product Environmental Criteria for

Adhesives (GL-008-008)



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 “Adhesive” product will be required to meet in order to be licensed to use the HKGLS label. The requirements include environmental criteria and related characteristics. The specification also defines the means to be used to verify conformance with the requirements.

POTENTIAL ENVIRONMENTAL IMPACTS

Adhesives are substances used by industry, contractors and individual consumers to bond a multitude of substrates in a wide range of application including fabrication, maintenance and repair. They come in many formulations, which serve different purposes.

Adhesives contain a large range of chemicals to ensure superior binding strength for different applications. These are binders, dispersing agents/surfactants, solvents/thinners, plasticizers, fillers, thickeners, de-foaming agents, preservatives and other chemical additives some of which may have health effects on humans or cause damage to the environment.

As most adhesives use volatile solvents to emulsify (liquify) the resin that acts as the bonding agents, they mostly contain volatile organic compounds (VOCs). The VOC emissions from adhesive products adversely affect the health and wellbeing of installers or building occupants as a result of reduced interior air quality. Water-based adhesives, however, emit far less VOCs than the solvent based products.

LABEL OBJECTIVE

The aim of the product environmental criteria developed for “Adhesives” is to :

- Reduce or prohibit the use of chemicals including phthalates, halogenated solvents that are harmful to humans and the environment.
- Reduce the environmental impact associated with packaging.

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PRODUCT DEFINITION

This document and all product environmental criteria therein apply to the following groups of adhesive:

- Contact adhesive (any adhesive intended by the manufacturer to adhere to itself instantaneously upon contact).
- Multi-purpose construction adhesives (any adhesive intended by the manufacturer for the installation or repair of various construction materials)
- Special purpose construction adhesive

PRODUCT CRITERIA

This standard defines a range of environmental performance criteria for adhesives (GL-008-008) under the Hong Kong Green Label Scheme (HKGLS), which are set out in the Table below.

Product Environmental Criteria	Verification Methods*
<p>1. The following substances shall not be formulated or added to the adhesives :</p> <ul style="list-style-type: none"> • phthalates (esters of 1,2 benzenedicarboxylic acid) • alkylphenol ethoxylates 	<p>✓ Review of supporting information</p> <p>The applicant shall provide MSDS of the all ingredient, relevant production documentation and a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company shall be provided showing compliance with the criteria.</p>
<p>2. Volatile organic compounds</p> <p>The product shall comply with the HKSAR EPD VOC regulation limit for adhesives.</p>	<p>✓ Review of laboratory test report(s);</p>
<p>3. Halogenated solvents shall not be present in the product or added to the product.</p>	<p>✓ Review of supporting information</p> <p>The applicant shall provide MSDS of the all ingredient, relevant production documentation and a written statement on compliance, signed by the Chief Executive Officer</p>

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Product Environmental Criteria	Verification Methods*
	<p>or other authorised representative of the applicant company shall be provided showing compliance with the criteria.</p>
<p>4. Packaging The package of the product shall be resealable after use except for single-use packaging or adhesive product in solid form.</p>	<p>✓ Inspection of product samples; AND ✓ Review of supporting information; AND ✓ Interview with relevant personnel.</p> <p>A <i>declaration</i> of conformity of the product with the requirements shall be submitted</p>
<p>5. Halogenated plastics shall not be used in packaging materials.</p>	<p>✓ Inspection of product samples; AND ✓ Review of supporting information;</p> <p>The applicant shall provide relevant documentation and a written statement on compliance, signed by the packaging supplier or manufacturer authorised representative showing compliance with the criteria.</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.