Hong Kong Green Label Scheme
Product Environmental Criteria for
Pen (GL-004-001)

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 pen will be required to meet in order to be licensed to use the HKGLS label. The requirements include environmental criteria and related 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 environmental impact of pen is related to the content of heavy metals and organic solvents in the product and consumption of resources. The release of heavy metals from pen may have toxic effects on human and the environment. Organic solvent in ink may be harmful to the health of users and contribute to the formation of photochemical oxidants. Discarding of pens and the packaging would present burden on consumption of resources.

LABEL OBJECTIVE

The aim of the environmental criteria developed for pen is to:

- Reduce the toxicity of ink and hence the potential health risk posed to the users.
- Minimize resource consumption and waste production by reducing the amount of primary packaging and promoting its re-usability and/or recyclability.

PRODUCT DEFINITION

This document and all product environmental criteria therein apply to fountain pens, ballpoint pens, marker pens or any pens that write with ink.

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PRODUCT CRITERIA

The table below sets out the environmental criteria for the product category of Pen (GL-004-001) under the HKGLS.

Product Environmental Criteria	Verification Method(s)*
1. The ink used shall not contain heavy metals (antimony, arsenic, barium, cadmium, selenium, mercury, lead and hexachromium) as well as aromatic compounds and halogenated solvent.	✓ Review of laboratory test report(s).[1] AND ✓ Review of supporting information;
2. The ink shall not contain volatile organic solvents except the ethanol used in marker pen.	✓ Review of supporting information. A *declaration* of compliance shall be provided together with full ingredient list of ink used.
3. The holder and cap of the product shall be easily disassembled and replaceable. No special tool shall be required to conduct the disassembly.	✓ Inspection of product samples;
4. The product shall use refillable ink or refills.	✓ Inspection of product samples;
5. Packaging requirements: • Packaging material shall not contain chlorine-based plastics; • General packaging requirements (Refer to criteria for packaging materials : GL-Packaging)	✓ Inspection of product samples; AND ✓ Review of supporting information; 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:***

   Heavy Metal: Atomic absorption spectrochemical analysis, ICP emission spectrochemical analysis.

   Aromatic Compounds: *ASTM D3257 or equivalent*

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