

EL323. Imitation Jewelry

[EL323-1999/4/2009-72]



1. Scope

The criteria shall apply to necklaces, earrings, rings, bracelets and chains among imitation precious metal gilt with gold-silver-rhodium or their alloys, which are used by touching skins.

2. Definitions

2.1

“Imitation precious metal” refers to the precious metal such as gold-silver-rhodium and the accessories gilt with precious metal alloy.

2.2

“Nickel emission testing” refers to the test of deciding the released amount of the nickel from an alloy containing nickel or a metal product with its surface filmed.

2.3

“Gilding” refers to the moist and dry gilding including filming thin layers of precious metal.

2.4

“Multi-layer gilding” refers to the gilding overlapped with more than two layers which has different containing rate of gold-silver-rhodium.

3. Certification Criteria

3.1 Environmental Criteria

3.1.1

Imitation precious metal shall not be positive on nickel emission testing.

3.1.2

The thickness of imitation precious metal shall satisfy the following requirements. However, in case of multi-layer gilding, gilding thickness of the farthest layer shall be estimated.

Quality of Gilding	Gold and Gold Alloy	Silver and Silver Alloy	Rhodium and Rhodium Alloy
Criteria [μm]	≥ 0.5	≥ 5	≥ 0.1

3.2. Quality Criteria

3.2.1

Appearance and adhesion strength of imitation precious metal shall satisfy KS D 8336 (gold and gilt gold alloy for accessory) 4.1 and 4.6, or KS D 8338 (gilt silver for accessory) 4.1 and 4.7.

3.2.2

Corrosion-resistance and discoloration-resistance of imitation precious metal shall satisfy the following requirements. However, the standard of discoloration-resistance shall not be applied to the products gilt with silver and silver alloy (or the farthest layer of multi-layer gilt product is silver and silver alloy).

Item	Criteria
Corrosion-Resistance	No corrosion including rusting (However, the area attached with jewels and the like shall be excluded)
Discoloration-Resistance	No abnormality (However, the area attached with jewels and the like shall be excluded)

3.3 Consumer information

Way of maintaining and managing properly

4. Test Methods

Certification Criteria		Test and Verification Methods
Environmental Criteria	3.1.1	Test report by an accredited testing laboratory in accordance with KS K 0853 (Test method for determination of nickel release from products intended to come into direct and prolonged contact with the skin: Alternate Exposure).
	3.1.2	Test report by an accredited testing laboratory in accordance with KS D 0246 (test methods of thickness of gilding)
Quality Criteria	3.2.1	· Test report by an accredited testing laboratory in accordance with KS D 8336 (gold and gilt gold alloy for accessory) or KS D 8338 (gilt silver for accessory) · Test report by an accredited testing laboratory in accordance with KS D 0254 (test methods of close adherence of gilding)
	3.2.2	Test report by an accredited testing laboratory in accordance with KS G 3306 (glasses frame) 9.5 and 9.7

4.1 General Matters

4.1.1

One test sample shall be required for each applied product.

4.1.2

Test sample shall be collected at random by a certification institute from products in market or those in storage at the production site.

4.1.3

Test result shall be numerically set according to KS Q 5002 (Statistical interpretation method of the data – Part 1: Statistical description of the data).

4.2 Test Methods of released Amount of Nickel

4.2.1

Reagent

4.2.1.1

1% dimethylglyoxime solution: Take 1mL dimethylglyoxime in a 100mL flask and fill the flask with ethanol up to the scale.

4.2.1.2

10% ammonia water: Take 35.7mL ammonia water (28%) in a 100mL flask and fill the flask with distilled water up to the scale.

4.2.2

Test operation: Right after getting one drop of 1% dimethylglyoxime solution and 10% ammonia water respectively on white cotton fabric or an applicator covered with absorbent cotton, rub the surface of imitation precious metal test sample for 30 seconds. However, imitation precious metals of which skin-touching surface is processed with paint shall be tested respectively in the state that of processed surface and in the state that the processed surface is peeled off by a proper solvent.

4.2.3

Judgment: If the area of white cotton fabric or absorbent cotton rubbed with the imitation precious metal test sample shows red (light pink ~ dark pink), it is judged to be positive (which means the released amount of nickel is more than $0.5 \mu\text{g}/\text{cm}^2 \cdot \text{week}$).

5. Reasons for Certification

“Less emission of heavy metals, Less metal allergy”

Common Criteria, Notice No. 2012-36, the Ministry of Environment

1. Eco-label products must follow the following provisions with regard to the proper treatment of environmental pollution substances, such as air and water wastes and noxious chemical substances emitted in the process of manufacturing or service operation.

A. When first applying for certification, the product manufacturer should observe the environment related laws and agreements pertaining to the region where the production factory or the place of service operation is located for a period of one year prior to the date of application. Any case of violation of the penalty clause will be verified by confirming documents involved during a period of one year to the date of application. Regarding any violation not related to the penalty clause, confirmation will be made on the completion of appropriate measures.

B. A person who has received a certification of eco-labeling shall observe the environment related laws and agreements pertaining to the region where the production factory or the place of service operation is located during the period of certification. However, regarding any violation besides a penalty, confirmation will be made on the completion of appropriate measures.

2. As a general rule, information for consumers shall be indicated on the surface of the product in such a way not to be easily erased. However, in case that indication on the surface of the product is impossible or undesirable, it can be indicated on the appropriate part such as product packaging, product guidebook and user's manual that consumers can recognize. However, the service information should be indicated inside and outside of the place of service operation. In case that indication inside and outside of the place of service operation is impossible or undesirable, it can be indicated on the appropriate part such as an agreement, letter of delivery, letter of guarantee, and PR materials that consumers can recognize.

3. In order to establish fair trade and to protect consumer, the applicant for eco-label and the holder of eco-label license shall observe the Act on the Fairness of

Indication and Advertisement with respect to the environmental aspects of the product.

4. For Various standards referred in the certification criteria by target product, the latest revised edition applies at the date of application, if not specified otherwise.

5. In applying the quality related criteria for each target product, if no standard is available that can be applied as the quality criteria, the president of Korea Environmental Industry & Technology Institute (KEITI) (hereafter referred to as "president of KEITI") may establish and operate the quality criteria for the product involved after review by a competent committee.