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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 2423.37-2006

**Environmental testing for electric and electronic products - Part
2: Test methods - Test L: Dust and sand
(English Translation)**

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Foreword

GB/T 2423 Environmental Testing - Part 2. Test Methods consists of several parts.

This Part is Part 37 of GB/T 2423. This Part equivalently adopts IEC 60068-2-68.1994

Environmental Testing - Part 2. Tests - Test L. Dust and Sand (English Edition).

Compared with the international standard, this Part makes the following editorial modifications.

--- Delete the foreword of the international standard;

--- Add the foreword of the national standard;

--- Use the corresponding national standard to replace the international standard;

--- Use the NOTE of 3.7 directly into the standard compilation.

This Part replaced GB/T 2423.37-1989; the differences between this Part and GB/T 2423.37-1989 are as follows.

--- Divide Test La into Tests La1 and La2; change the test conditions;

--- Add test method Lc2;

--- Add test guidance after the test methods.

The Annexes A and B of this Part are informative.

This Part was proposed by China Electrical Equipment Industry Association.

This Part shall be under the jurisdiction of National Technical Committee on Environmental Technologies of Electric and Electronic Products of Standardization Administration of China (SAC/TC 8).

Drafting organization of this Part. Guangzhou Electric Apparatus Research Institute.

Chief drafting staffs of this Part. Yan Jinglian.

The historical edition replaced by this Standard is as follows. GB/T 2423.37-1989.

1 General

This survey indicates the general structure of the dust/sand tests included in this Part.

The structuring and a summary of the characteristics of the different tests are given in Figure 1 and Table 1. It should be noted that the dust test of IEC 60529 has its equivalent in the proposed method La2. See also Annex A.

2 Normative References

The provisions in following documents become the provisions of this Part through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Part, however, parties who reach an agreement based on this Part are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

3 Terms and Definitions

For the purpose of this Part, the following terms and definitions apply.

General dimension of the dust and sand particles based on the premise that the particles are spheres; commonly measured by sieving, by calculating settling velocities,

or by determining areas of microscopic images.

4 Test La. Non-Abrasive Fine Dust

The test chamber shall expose the test specimen to a mainly vertical, non-laminar air flow containing a specified quantity of test dust. For this purpose, the test dust shall be agitated and blown into a sealed chamber. It shall be possible to cycle the chamber pressure as required by 4.1.4.6.

5 Test Lb. Free Settling Dust

The severity as indicated by the duration of conditioning shall be given in the relevant specification.

The relevant specification may call for intermediate measurements of the specimen during conditioning. Intermediate measurements which would require removal of the specimen from the chamber are not permissible.

6 Test Lc. Blown Dust and Sand

Method Lc1 is a dust test in which the specimen is exposed to an airflow containing dust of specified particle size. A horizontal airflow is specified for the test because both the wind movement and the main moving direction of objects are prevalently horizontal for the majority of practical cases.

Annex A

(Informative)

General Guidance

It is important in order to avoid unwanted side effects that the test dusts are free from contaminants, in particular salts and biological material.

Annex B

(Informative)

Bibliography

Dust test similar to method La2 are given in the following documents.

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