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PEOPLE'S REPUBLIC OF CHINA**

GB/T 4207-2022

**Method for the determination of the proof and the comparative
tracking indices of solid insulating materials**

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1. Rules for the Structure and Drafting of Standardizing Documents.

This Document replaced GB/T 4207-2012 Method for the Determination of the Proof and the

Comparative Tracking Indices of Solid Insulating Materials. Compared with GB/T 4207-2012,

the major technical changes of this Document are as follows besides the structural adjustment

and editorial modifications.

- a) Add "Description of influence of material composition and surface condition on measurement results" (see Clause 1 of this Edition);
- b) Add normative reference of "ISO 4287" (see Clause 2 of this Edition);
- c) Delete the five normative references of "GB/T 17037.1-1997, GB/T 17037.3-2003, IEC 104, ISO 293.1986 and ISO 295.1991" (see Clause 2 of the 2012 Edition);
- d) Change the notes on the definition of the term "electrical tracking failure" (see 3.2 of this Edition; 3.2 of the 2012 Edition);
- e) Change the notes on the definition of the term "comparative tracking index"; and add Notes 1 and 4 (see 3.5 of this Edition; 3.5 of the 2012 Edition);
- f) Add the term and definition of "deionized water" (see 3.8 of this Edition);
- g) Change the content of the "principle" note (see Clause 4 of this Edition; Clause 4 of the

2012 Edition);

- h) Change the documents that can be referred to for the sample processing technology in "Specimen"; and add the technical content of Notes 6 and 7 (see Clause 5 of this Edition; Clause 5 of the 2012 Edition);
- i) Change the definition of ambient temperature in "Environmental Conditions", from "23°C+/-5 °C" to "(23+/-2) °C"; and add the requirement to start the test time (see 6.1 of this Edition; see 6.1 of the 2012 Edition);

j) Change the description of "Solution A"; delete the requirement for the conductivity of deionized water used to configure the solution; and add Note 2 (see 7.3 of this Edition;

7.3 of the 2012 Edition);

k) Change the description of "Solution B" to "See Annex B" (see 7.3 of this Edition; 7.3 of the 2012 Edition);

l) Add The composition and ratio requirements, resistivity requirements and surface tension requirements of Solution C (see 7.3 of this Edition; 7.3 of the 2012 Edition);

m) Change the technical content of the "drip device"; add the requirement for the target time

between drops; and add the content of "Note 2" (see 7.4 of this Edition; 7.4 of the 2012 Edition);

n) Add the technical content of "conditioning room" (see 7.7 of this Edition);

o) Delete the "requirements for the specified number of specimens" (see 10.1 of the 2012 Edition);

p) Change the description of "report of electric tracking index test results" (see 10.2 of this Edition; 10.2 of the 2012 Edition);

q) Change the requirements of "Overview" to determine the comparative tracking index; and delete Notes 1 and 2 (see 11.1 of this Edition; 11.1 of the 2012 Edition);

r) Add "screening test" (see 11.2 of this Edition);

s) Change the technical content of Note 1 in "Measurement of 100 drops of liquid" (see 11.4

of this Edition; 11.2 of the 2012 Edition);

t) Change the technical content of "Annex B"; change "Solution B" to recommended "Solution C"; delete the conductivity requirement of deionized water in the technical content of "Solution B"; add "Solution B can be used to replace Solution C to achieve compatibility of test results" (see Annex B of this Edition; 7.3 of the 2012 Edition);

u) Change the content of "Selection of electrode material" (see Annex C of this Edition; Annex B of the 2012 Edition).

This Document equivalently adopts IEC 60112.2020 Method for the Determination of the

Proof

and the Comparative Tracking Indices of Solid Insulating Materials.

This Document made the minimum editorial modifications as follows.

--- Due to editorial errors in the original text, change "(23+/-5) degrees C" in 6.1 to "(23+/-2) degrees C".

Please note some contents of this Document may involve patents. The issuing agency of this

Document shall not assume the responsibility to identify these patents.

This Document was proposed by China Electrical Equipment Industrial Association.

This Document shall be under the jurisdiction of National Technical Committee on Evaluation

and Qualification of Electrical Insulating Material and Systems of Standardization Administration of China (SAC/TC 301).

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