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

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**General technical requirements for electrically conductive
material-over-foam gaskets**

包裹泡棉衬垫的电磁屏蔽效能通用技术要求

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting: Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed by China Electrical Equipment Industry Association: This document is under the jurisdiction of the National Standardization Technical Committee on Electromagnetic Shielding Materials (SAC/TC323): This document was drafted by: Maxim New Materials Co., Ltd., Shanghai Institute of Metrology and Testing Technology, Shenzhen Feirongda Technology Co., Ltd: Co., Ltd., Jiangsu Institute of Quality and Standardization, Institute of Metal Research, Chinese Academy of Sciences, Chengdu Moore Huanyu Testing Technology Co., Ltd., Jinan Zhongzheng New Materials Co., Ltd: The main drafters of this document: Chen Weibin, Chen Chaochan, Shi Weiwei, Yu Xiaolei, Ma Song, Chen Nan, Li Changlin, Li Siqing, Miao Yi: Electromagnetic Shielding Effectiveness of Wrapped Foam Pads General Technical Requirements

1 Scope

China's national general technical requirements for conductive fabric-over-foam gaskets. The gasket is a strip of soft foam wrapped in a metallised conductive fabric, and it does a job that a purely mechanical seal cannot: it closes the electromagnetic gap at the joint of a shielded enclosure. An electronics housing that is grounded and continuous is a Faraday shield, and every seam, door and panel joint in it is a slot antenna that radiates the interference the shield was meant to contain and admits the interference it was meant to exclude. The gasket restores electrical continuity across the joint while compressing to accommodate the gap variation of a real assembly. What the requirements have to specify is the combination that makes it work - low and stable contact resistance, adequate

shielding effectiveness across the frequency range, and compression set low enough that the seal survives the enclosure being opened and closed repeatedly.

This document specifies the technical requirements, inspection rules, signs, and packaging of foam cushion materials in the frequency range of 10kHz~40GHz: Requirements for packaging, transportation and storage, and the corresponding test methods are described: This document applies to the design, production and testing of wrapped foam gasket materials for electromagnetic shielding, grounding, etc: applications:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 191 Packaging, storage and transportation icon marks GB/T 2828:

1 Counting sampling inspection procedure Part 1: Batch-by-batch inspection sampling plan retrieved by acceptance quality limit (AQL)

GB/T 2829-2002 Sampling procedure and table for periodic inspection counting (applicable to inspection of process stability)

GB/T 5169:16-2017 Fire Hazard Tests for Electrical and Electronic Products Part 16: Test Flame 50W Horizontal and Vertical Fire Flame test method

GB/T 6669-2008 Determination of compression set of flexible foam polymeric materials

GB/T 26125 Determination of six restricted substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers) in electrical and electronic products

GB/T 26572 Limit Requirements for Restricted Substances in Electrical and Electronic Products

GB/T 26667 Terminology of electromagnetic shielding materials

3 Terms and Definitions

The following terms and definitions defined in GB/T 26667 apply to this document: 3:

1 Wrapped foam linerelectro-conductivematerial-over-foamgasket Shaped conductive foam pad A type of electromagnetic shielding material that wraps a layer of conductive material outside the foam and fixes it on the working equipment to play the role of electromagnetic shielding or grounding: 3:2 SE At a certain point under the same excitation, the ratio of the

electric field strength, magnetic field strength or power measured when there is a shielding material to that when there is no shielding material: $3:3$ initial thickness initialthickness T_i
The original thickness of the wrap foam pad before compression:

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