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

GB/T 33319-2025

Replacing GB/T 33319-2016

Plastics - Polyethylene (PE) compounds for breathable film

塑料 聚乙烯 (PE) 透气膜专用料

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1 Scope

GB/T 33319-2025 is the Chinese national standard covering the filled polyethylene compound that becomes a breathable film - the calcium carbonate loading and its dispersion, which decide whether the stretched film has the micropores that pass vapour but not liquid, as a nappy backsheet must. Issued on 2 December 2025, it has been in force since 1 July 2026, replacing GB/T 33319-2016.

This document specifies the naming, requirements, inspection rules, marking and accompanying documents, packaging, transportation and storage of special polyethylene (PE) compounds for breathable film, and describes the corresponding test methods. This document applies to special polyethylene compounds for breathable film made from polyethylene resin as the matrix, with the addition of mineral fillers and other additives, through melt extrusion granulation.

2 Normative references

The provisions of the following documents constitute the essential clauses of this document through normative references in this text. Among them, for any dated reference, only the version corresponding to that date applies to this document; for any undated reference, the latest version (including all amendments) applies to this document.

GB/T 1033.1 Plastics - Methods for determining the density of non-cellular plastics - Part

3 Terms and definitions

The terms and definitions defined in GB/T 2035 and the following terms and definitions apply to this document.

3.1 breathable film After being cast or blown into film, the film is stretched at a certain temperature to form a certain number of micropores inside, thus creating a breathable function.

3.2 filter pressure difference value ΔP The difference between the pressure at the end point of the filter pressure test and the pressure 15 minutes prior.

4 Naming

4.1 General rules The naming of special polyethylene compounds for breathable film consists of two character-groups. -- Character group

4.2 Character group

1 According to GB/T 1844.1, the code for polyethylene resin is "PE".

4.3 Character group 2

4.3.1 General rules In this character group, letter codes and number codes are used. Position 1 is the product code, with the letter "B" indicating the special polyethylene compound for the breathable film; positions 2 and 3 are characteristic performance codes, separated by a hyphen "-", representing ash content (see 4.3.2) and melt flow rate (see 4.3.3) respectively; position 4 is the application code, with the letter "S" indicating use in hygiene products, and without "S" indicating use in other products. Producers of special polyethylene compounds for breathable film shall name the materials. If individual test values fall on the other side of the limit value or boundary due to permissible limits in the production process, the naming shall not be affected.