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

GB/T 17030-2019

Replacing GB/T 17030-2008

Polyvinylidene chloride (PVDC) flat-film for food-packaging

食品包装用聚偏二氯乙烯 (PVDC) 片状肠衣膜

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Table of Contents

- 1 Scope
- 2 Normative References
- 3 Classification...
- 4 Technical Requirements...
- 5 Test Methods...
 - 5.4 Printing quality
 - 5.5 Specification and size
 - 5.6 Physical and mechanical properties
- 6 Inspection Rules...
 - 6.4 Judgement Rules
- 7 Marking, Package, Transportation and Storage

1 Scope

GB/T 17030-2019 is the Chinese national standard on polyvinylidene chloride (pvdc) flat-film for food-packaging, in the field of packaging and distribution of goods. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 May 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2019. Classification: ICS 55.040, CCS A82. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies the classification, technical requirements, test methods, inspection rules, marking, package, transportation and storage of polyvinylidene chloride (PVDC) flat-film for food-packaging. This Standard is applicable to the polyvinylidene chloride (PVDC) flat-film (hereinafter referred to as flat-film) prepared by blow molding using polyvinylidene chloride resin as the main raw material.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for

the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 1037-1988 Test Method for Water Vapor Transmission of Plastic Film and Sheet - Cup Method

GB/T 1038 Plastics - Film and Sheeting - Determination of Gas Transmission - Differential-Pressure Method

GB/T 1040.3-2006 Plastics - Determination of Tensile Properties - Part 3: Test Conditions for Films and Sheets

GB/T 2981 Technical Specification of Pneumatic Tyres for Industrial Vehicles

GB 4806.1 National Food Safety Standard - General Safety Requirements on Food Contact Materials and Articles

GB 4806.7 National Food Safety Standard - Food Contact Plastic Materials and Articles

GB/T 6672 Determination of Thickness of Plastic Film and Sheeting by Mechanical Scanning than 10x to measure the diameter of the carbonization points and impurities in the flat- film.

5.4 Printing quality

5.4.1 Visually examine the printing quality of the flat-film under the natural light.

5.4.2 Use the 20x magnifier with accuracy of 0.01mm to measure the overprinting error between any two colors on the primary and secondary positions of the sample; separately measure three points; then take the average value as the overprinting error of the primary and secondary positions.

5.5 Specification and size

5.5.1 The thickness test shall be carried out as per the provisions of

GB/T 6672; use the maximum and minimum thickness measurement values to calculate the limit deviation of the thickness.

5.5.2 The length and width inspection shall be carried out as per the provisions of GB/T 6673.

5.6 Physical and mechanical properties

5.6.1 Tensile strength and nominal tensile strain at break It shall be carried out as per the provisions of

GB/T 1040.3-2006. Adopt Type-2 sample; sample width is $15\text{mm} \pm 0.1\text{mm}$; length is greater than or equal to 150mm; the clamp spacing of the sample is $100\text{mm} \pm 1\text{mm}$; test speed

(no-load) is 250mm/min $\pm$ 25mm/min. The results shall take the average value, retaining the integer digits.

5.6.2 Tear resistance force It shall be performed as per the provisions of GB/T 16578.2.

5.6.3 Heat shrinkage rate It shall be performed as per the provisions of GB/T 12027. The heating medium is air; test temperature is 120°C $\pm$ 2°C; test time is 30min.

5.6.4 Water vapor transmission rate It shall be performed as per the Condition-2 in GB/T 26253-2010 or Condition-A in

GB/T 1037-1988; and the arbitration shall be performed as per the method in GB/T 26253-2010.

5.6.5 Oxygen gas transmission rate It shall be performed as per the provisions of GB/T 19789 or GB/T 1038; test

d) When resuming production after more than half a year shutdown;

e) When exit-factory inspection results have significant differences with the previous type inspection;

f) When the quality supervision agency proposes the inspection requirements.

6.4 Judgement Rules

6.4.1 If the appearance, printing quality, specification and size inspection results of the flat-film meet the technical requirements; then such batch of products are judged to be qualified; if one item is unqualified; and the double sampling reinspection is still unqualified, then such batch of products are judged to be unqualified.

6.4.2 If the test results on the physical and mechanical properties are qualified, then such batch of products are qualified; if one item is unqualified; and the double sampling reinspection is still unqualified, then such batch of products are judged to be unqualified.

6.4.3 If one item in inspection results of the food safety indexes is unqualified; then such batch of products are unqualified.

7 Marking, Package, Transportation and Storage

7.1 Marking The products' markings and labels shall conform to the provisions of GB 4806.1 and GB 4806.7. The product shall be attached with certificate on which the following information shall be indicated, such as product name, type, manufacturer, manufacture address, production date, inspection staff, batch number, executive standard and product color.

7.2 Package The flat-film shall take the inner package of plastics; and outer package of

corrugated box. Each roll of flat-film shall be placed into the carton in the vertical direction of the core tube. Special package shall be agreed by the supplier and the purchaser.

7.3 Transportation The products shall be protected from mechanical collisions, sun, and rain during the transportation period; it shall not be transported together with the toxic and hazardous substances.

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