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

**GB/T 41877.2-2022**

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**Plastics - Ethylene-vinyl alcohol (EVOH) copolymer moulding  
and extrusion materials - Part 2: Preparation of test specimens  
and determination of properties**

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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 of Standardization Documents"

drafted.

This document is part 2 of GB/T 41877 "Plastic Ethylene Vinyl Alcohol (EVOH) Copolymer Molding and Extrusion Materials".

GB/T 41877 has published the following parts.

--- Part 1. Nomenclature system and classification basis;

--- Part 2. Sample preparation and performance determination.

This document is modified using ISO 21309-2:2019 "Plastics Ethylene Vinyl Alcohol (EVOH) Copolymer Molding and Extrusion Materials Part 2

Part. Sample Preparation and Performance Determination".

This document has the following structural adjustments compared to ISO 21309-2:2019.

--- Appendix B corresponds to Appendix A in ISO 21309-2:2019;

--- Appendix C corresponds to Appendix B in ISO 21309-2:2019.

Compared with ISO 21309-2:2019, this document has many technical differences. In the outer margins of the clauses involved, vertical

Straight single line (|) is marked. See Appendix A for a list of these technical differences and their reasons.

The following editorial changes have been made to this document.

--- Delete the sample preparation code "M" for 4 items of density, ash, volatile and ethylene content measured by the liquid pycnometer method;

--- Added Appendix A (informative) "Technical differences between this document and ISO 21309-2:2019 and their reasons".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

## Introduction

GB/T 41877 is the basic standard for the classification and nomenclature, sample preparation and performance determination of ethylene-vinyl alcohol copolymer resins.

The evaluation and application of vinyl alcohol products and the formulation of product standards provide support. Since ISO 21309 consists of two parts, the national standard

During the conversion process, the structure was kept consistent with ISO 21309.

GB/T 41877 consists of two parts.

--- Part 1.Nomenclature system and classification basis;

--- Part 2.Sample preparation and performance determination.

All specimen preparation, conditioning, specimen dimensions, and test conditions specified in this document are intended to provide reproducibility and comparability.

Plastic Ethylene Vinyl Alcohol (EVOH)

Copolymer molding and extrusion materials

Part 2.Specimen preparation and performance determination

## 1 Scope

This document specifies the methods and conditions for the preparation and determination of properties of ethylene-vinyl alcohol (EVOH) molding and extrusion materials. this document

It also specifies requirements for the pretreatment of the test material and the conditioning of the specimens prior to testing.

This document lists properties and test methods suitable and necessary to characterize ethylene vinyl alcohol (EVOH) molding and extrusion materials. these sexes

can be selected from the general test methods of GB/T 19467.1.This document also lists molding and extrusion materials that are widely used or have special

Other test methods of significance, and the method for determination of melt mass flow rate specified in GB/T 41877.1.

In order to ensure the reproducibility and reproducibility of test results, it is necessary to use the methods of sample preparation and condition adjustment specified in this

document to

and the specified sample size and test method. Test data obtained using specimens prepared under different conditions or using specimens of different sizes can be can be inconsistent.

## 2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 1033.1 Determination of Density of Plastic Non-foamed Plastics Part 1.Impregnation, Pycnometer and Titration

(GB/T 1033.1-2008, ISO 1183-1.2004, IDT)

GB/T 1040.1 Determination of Tensile Properties of Plastics Part 1.General (GB/T 1040.1-2018, ISO 527-1.

2012, IDT)

GB/T 1040.2 Determination of Tensile Properties of Plastics Part 2.Test Conditions for Molded and Extruded Plastics (GB/T 1040.2-

2022, ISO 527-2.2012, MOD)

GB/T 1043.1 Determination of impact properties of plastic simply supported beams - Part 1.Non-instrumented impact test (GB/T 1043.1-

2008, ISO 179-1.2000, IDT)

GB/T 1408.1 Test method for electrical strength of insulating materials Part 1.Test under power frequency (GB/T 1408.1-2016,

IEC 60243-1.2013, IDT)

GB/T 1409 Measures the permittivity and dielectric loss factor of electrical insulating materials at power frequency, audio frequency, and high frequency (including metric wave wavelengths)

Recommended method (GB/T 1409-2006, IEC 60250.1969, MOD)

GB/T 1633 Determination of Vicat softening temperature (VST) of thermoplastics (GB/T 1633-2000, ISO 306.1994, IDT)

GB/T 1634.1 Determination of plastic deformation temperature under load Part 1.General test method (GB/T 1634.1-2019,

ISO 75-1.2013, MOD)

GB/T 1634.2 Determination of plastic deformation temperature under load Part 2.Plastics and hard rubber (GB/T 1634.2-2019,

ISO 75-2.2013, MOD)

GB/T 1843 Determination of Impact Strength of Plastic Izod Beams (GB/T 1843-2008, ISO 180.2000, IDT)

GB/T 2408 Determination of the flammability of plastics Horizontal and vertical methods (GB/T 2408-2021, IEC 60695-11-10.