

ICS 91.120.10  
CCS Q 25



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

**GB/T 34005-2017**

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**Determination of water vapour transmission properties of  
preformed pipe insulation**

管状绝热制品水蒸气透过性能试验方法

**(English Translation)**

**Issued on: July 12, 2017**

**Implemented on: June 1, 2018**

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**Issued by: General Administration of Quality Supervision, Inspection and  
Quarantine of the People's Republic of China, Standardization  
Administration of the People's Republic of China**

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### Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafted law Amendment uses ISO 12629:2011 "Prefabricated tubular insulation products for construction and industrial equipment Water vapor Through the performance test method. " this standard compared with ISO 12629:2011 less structural adjustment, the ninth chapter of this standard is ISO 12629:2011 Chapter 10 structure content.

This standard compared with ISO 12629:2011 there are technical differences, the provisions of these differences have been passed in the outer margin of the page margin Set the vertical single (I) were marked in Appendix A is given a list of the corresponding technical differences and their causes.

This standard also made the following editorial changes.

--- Deleted the informative ISO 12629:2011 Appendix A "on the test of air pressure changes in the calibration";

--- Remove ISO 12629:2011 references.

This standard proposed by the China Building Materials Federation.

This standard by the National Standardization Technical Committee thermal insulation material (SAC/TC191) centralized.

This standard was drafted unit. Shanghai Academy of Building Research (Group) Co., Ltd., Shanghai Jianke Inspection Co., Ltd. Suolan rand (Su Insulation Materials Co., Ltd., Jiangsu Zhongsheng Pipeline Engineering Co., Ltd., Winning (Jiangsu) Co., Ltd. Energy Saving, Henan Building Materials Research Design Institute Co., Ltd., Building Materials Industry Technology Supervision and Research Center.

## 1 Scope

This standard specifies the terms and definitions of the test method of water vapor transmission performance of tubular thermal insulation products in a steady state, principles, equipment Preparation, test pieces, test procedures, calculation and expression of results and test reports.

This standard applies to the construction and industrial equipment with homogeneous insulation and its surface with a complete skin or other materials on the surface of the tube Thermal insulating products - Determination of water vapor permeability.

Material wet-flow density and moisture permeability and the thickness of the test piece. For homogenous materials, the moisture permeability coefficient is its characteristic property.

If the tubular insulation products processed from flat products, can refer to GB/T 17146 direct test flat products to determine its water vapor Gas through the performance.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

Test methods for water vapor transmission of building materials and their products GB/T 17146

## 3 Terms and definitions

The following terms and definitions apply to this document.

Wet flow watervapourflowrate Unit of time through the surface of the specimen water vapor flow.

Wet flow density watervapourtransmissionrate A certain temperature and humidity conditions, the unit area through a certain thickness of the specimen wet flow.

Moisture permeability watervapourpermeance the wet flow density is calculated by dividing the water vapor partial pressure differential across the specimen.

Moisture resistance watervapourresistance Moisture permeability of the reciprocal.

Moisture absorption coefficient watervapourpermeability Thickness of the test piece and the product of moisture permeability.