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BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

जालीदार काँच खंड और पाइप ताप रोधन — विशिष्टि

(*IS 11307 का पहला पुनरीक्षण*)

Draft Indian Standard

Cellular Glass Block and Pipe Thermal Insulation — Specification

(*First Revision of IS 11307*)

(ICS 91.100.60)

Thermal Insulation Sectional Committee, CHD 27	Last Date for Comments: **31 July 2024**

Thermal Insulation Sectional Committee, CHD 27

NATIONAL FOREWORD

(*Formal clauses will be added later*)

This standard was originally published in 1985. The committee responsible for formulating this standard has decided to revise the standard by adotpting “ISO 24285: 2022 Thermal insulation for building equipment and industrial installations — Cellular glass products” on dual number basis. This standard specifies the requirements and test methods for factory-made cellular glass products, which are used for thermal insulation of building equipment and industrial installations, with an operating temperature range of approximately −265 °C to +430 °C.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.

b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, the reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

International Standards/ documents	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 1716 — Reaction to fire tests for products — Determination of the gross heat of combustion (calorific value)	IS/ISO 1716 : 2018 — Reaction to fire tests for products — Determination of the gross heat of combustion (calorific value)	Identical
ISO 8497 — Thermal insulation — Determination of steady-state thermal transmission properties of thermal insulation for circular pipes	CHD/27/24920 — Thermal insulation — Determination of steady-state thermal transmission properties of thermal insulation for circular pipes	Identical
ISO 11925-2 — Reaction to fire tests — Ignitability of products subjected to direct impingement of flame — Part 2 : Single-flame source test	IS/ISO 11925-2 : 2020 — Reaction to fire tests — Ignitability of products subjected to direct impingement of flame — Part 2 : Single-flame source test	Identical

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this Standard:

International Standards/ documents	*Title*
ISO 1182	Reaction to fire tests for products — Non-combustibility test
ISO 8301	Thermal insulation — Determination of steady- state thermal resistance and related properties — Heat flow meter apparatus
ISO 8302	Thermal insulation — Determination of steady- state thermal resistance and related properties — Guarded hot plate apparatus
ISO 9229	Thermal insulation —Vocabulary
ISO 12570	Hygrothermal performance of building materials and products — Determination of moisture content by drying at elevated temperature
ISO 12572	Hygrothermal performance of building materials and products — Determination of water vapour transmission properties — Cup method

ISO 12624	Thermal insulating products equipment and industrial installations — Determination of trace quantities of water-soluble chloride, fluoride, silicate, sodium ions and *p*H
ISO 12628	Thermal insulating products for building equipment and industrial installations — Determination of dimensions, squareness and linearity of preformed pipe insulation
ISO 13787	Thermal insulation products for building equipment and industrial installations — Determination of declared thermal conductivity
ISO 16535	Thermal insulating products for building applications — Determination of long-term water absorption by immersion
ISO 18096	Thermal insulating products for building equipment and industrial installations — Determination of maximum service temperature for preformed pipe insulation
ISO 18097	Thermal insulating products for building equipment and industrial installations — Determination of maximum service temperature
ISO 29465	Thermal insulating products for building applications — Determination of length and width
ISO 29466	Thermal insulating products for building applications — Determination of thickness
ISO 29467	Thermal insulating products for building applications — Determination of squareness
ISO 29468	Thermal insulating products for building applications — Determination of flatness
ISO 29469	Thermal insulating products for building applications — Determination of compression behaviour
ISO 29472	Thermal insulating products for building applications — Determination of dimension stability under specified temperature and humidity conditions
ISO 29771	Thermal insulating products for building applications — Determination of organic content
EN 12089	Thermal insulating products for building applications — Determination of bending behaviour

In this adopted standard, reference appears to certain International Standards/documents where the standard atmospheric conditions to be observed are stipulated which are not applicable to tropical/subtropical countries. The applicable standard atmospheric conditions for Indian conditions are (27 ± 2) °C and (65 ± 5) percent relative humidity and shall be observed while using this standard.

The standard also makes a reference to the BIS certification marking of the product. Detail of which are given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2: 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

National Annex A

(*National Foreword*)

A-1 BIS CERTIFICATION MARKING

The product may also be marked with the Standard Mark.

A-1.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations made thereunder. The details of the conditions under which the licence for use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.