

Insulation Materials, Testing and Applications

McElroy/Kimpflen editors



STP 1030

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Insulation Materials, Testing, and Applications

D. L. McElroy and J. F. Kimpflen, editors



ASTM
1916 Race Street
Philadelphia, PA 19103

Library of Congress Cataloging-in-Publication Data

Insulation materials, testing, and applications/McElroy/Kimpflen,
editors.

(STP: 1030)

Materials from the ASTM Symposium on Insulation Materials,
Testing, and Applications.

"ASTM publication code number (PCN) 84-010300-61"—CIP t.p. verso.

Includes bibliographical references.

ISBN 0-8031-1278-5

1. Insulating materials—Testing—Congresses. 2. Insulation
(Heat)—Testing—Congresses. I. McElroy, D. L. II. Kimpflen,
Joseph F. III. ASTM Symposium on Insulation Materials, Testing, and
Applications (1987: Bal Harbour, Fla.) IV. Series: ASTM special
technical publication; 1030.

TA410.I76 1990

89-17743

620.1'95—dc20

CIP

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The quality of the papers in this publication reflects not only the obvious efforts of the authors and the technical editor(s), but also the work of these peer reviewers. The ASTM Committee on Publications acknowledges with appreciation their dedication and contribution of time and effort on behalf of ASTM.

Foreword

The ASTM Symposium on Insulation Materials, Testing, and Applications was held in Bal Harbour, Florida, on December 6–9, 1987. The event was sponsored by ASTM Committee C-16 on Thermal Insulation, the Department of Energy (DOE), the Building Thermal Envelope Coordinating Council (BTECC), and the Oak Ridge National Laboratory (ORNL).

The Symposium was co-chaired by J. F. Kimpflen, Certain-Teed Corporation, and I. S. Seigler, Ralph M. Parsons Company. Mr. Kimpflen has co-edited the present volume with D. L. McElroy, Oak Ridge National Laboratory.

Contents

Overview

ix

NEW MATERIALS

Evaluation of Fumed-Silica Insulation for a Thermal Conductivity Standard

**Reference Material—B. G. RENNEX, T. A. SOMERS, T. K. FAISON, AND
R. R. ZARR**

3

A Summary of the Manufacture, Uses, and Properties of Autoclaved Aerated Concrete—R. G. MATHEY AND W. J. ROSSITER, JR.

15

Magnesium Oxychloride-Based Foam Thermal Insulation: An Initial Investigation—

W. J. ROSSITER, JR. AND P. W. BROWN

38

Thermal Resistance of Fine Powders at Atmospheric Pressure and under Vacuum—

D. L. MCELROY, F. J. WEAVER, D. W. YARBROUGH, AND R. S. GRAVES

52

Solid Conductivity of Loaded Fibrous Insulations—J. FRICKE, D. BÜTTNER, R. CAPS,

J. GROSS, AND O. NILSSON

66

Discussion

78

Radiant Heat Transfer in Extremely Low Density Fibrous Assemblies—R. W. DENT,

J. SKELTON, AND J. G. DONOVAN

79

ASSESSMENTS AND PROPERTIES OF FOAMS

Variation of Insulating Properties of Closed-Cell Foam Insulation—

A. G. OSTROGORSKY AND L. R. GLICKSMAN

109

Overview of Physical Properties of Cellular Thermal Insulations—W. R. STRZEPEK

121

Technical Assessment of Foam-in-Place Cellular Plastics for Building Envelope Applications—R. P. TYE

141

Evaluation of Long-Term Thermal Resistance of Gas-Filled Foams: State of the Art—

M. BOMBERG AND D. A. BRANDRETH

156

Measurement of Gas Diffusion in Closed-Cell Foams— I. R. SHANKLAND

174

Foam Insulation Aging: Historical Perspective and Outstanding Problems—

L. M. ZWOLINSKI

189

Deterioration of Thermal Insulation Properties of Extruded Polystyrene: Classification and Quality Control System in Sweden—P. I. SANDBERG	197
Long-Term R-Values and Thermal Testing Requirements for Rigid Insulating Foams—J. R. HAGAN AND R. G. MILLER	205
Discussion	217

LOOSE-FILL BEHAVIOR

Comparison of Gas and Electric Radiant Panels for Measuring the Flammability of Loose-Fill Cellulose Insulation— S. A. SIDDIQUI, R. L. HILLIER, G. H. DAMANT, AND H. L. NEEDLES	221
Field Data on Settling in Loose-Fill Thermal Insulation—B. SVENNERSTEDT	231
An <i>In Situ</i> Evaluation of the Settling of Loose-Fill Rock Wool Insulation in the Attics of Two Manufactured Home Units—R. S. GRAVES AND D. W. YARBROUGH	237
Apparent Thermal Conductivity versus Density as a Function of Blown Thickness for Pneumatically Applied Insulations: Continuing Studies—R. C. MATHIS AND H. D. ANGLETON	244
New Developments Toward Accurate Assessment of Material Density for ASTM C 687 Testing of Pneumatically Applied Insulations—R. C. MATHIS AND T. M. KENNEY	253
A Round Robin on Apparent Thermal Conductivity of Several Loose-Fill Insulations—R. D. ADAMS AND J. G. HUST	263
A Theoretical and Experimental Study of Convective Effects in Loose-Fill Thermal Insulation—C. LANGLAIS, E. ARQUIS, AND D. J. MCCAA	290
An Acoustic Technique for Evaluation of Thermal Insulation—D. R. FLYNN, D. J. EVANS, AND T. W. BARTEL	319

SYSTEM PERFORMANCE TESTING

A Dynamic Test Method for Determining Transfer Function Coefficients for a Wall Specimen Using a Calibrated Hot Box—D. M. BURCH, R. R. ZARR, AND B. A. LICITRA	345
Discussion	361
Thermal Resistances of Metal Frame Wall Constructions Incorporating Various Combinations of Insulating Materials—W. R. STRZEPEK	362
Discussion	377

Methods for Determining the Thermal Performance of Reflective Insulation Systems —R. G. MILLER, D. S. OSCAR, F. SEIFAEI, AND W. P. GOSS	378
Influence of Natural Convection in an Insulated Cavity on the Thermal Performance of a Wall —J. G. N. LECOMPTE	397
A Survey of Window <i>U</i>-Value Measurements in Sweden (1977–1987) —P. STAELENS	421
Heat Transfer Characteristics of a Recently Developed Lightweight Structural Concrete —M. G. VAN GEEM	437
The Northwest Wall Moisture Study: A Field Study of Moisture in the Exterior Walls of New Northwest Energy-Efficient Homes —G. A. TSONGAS	464
A Comparison of Two Techniques for Monitoring the Field Thermal Performance of Roof Systems —G. E. COURVILLE, P. W. CHILDS, A. R. MOAZED, G. D. DERDERIAN, G. D. STEWART, AND L. S. SHU	483
A Comparison of Two Independent Techniques for the Determination of <i>In Situ</i> Thermal Performance —G. E. COURVILLE, A. O. DESJARLAIS, R. P. TYE, AND C. R. MCINTYRE	496
Discussion	509
Use of Two Heat Flow Transducers for Transient Thermal Measurements on Porous Insulating Materials —C. LANGLAIS AND J. BOULANT	510

PROPERTIES AND MODELS

Modeling of Thermal Resistance Test Configurations That Use Thin Heaters —D. W. YARBROUGH, D. L. MCELROY, AND R. S. GRAVES	525
Importance of Radiation in Transient Tests of Fibrous Insulations —J. R. THOMAS, JR.	537
Transient Coupled Conduction and Radiation Heat Transfer Through Ceiling Fiberglass/Gypsum Board Composite —H. Y. YEH AND J. A. ROUX	545
Spectral Radiative Properties and Apparent Thermal Conductivity of Expanded Polystyrene Foam Insulation —S. J. YAJNIK AND J. A. ROUX	561
Optically Thin Fibrous Insulations —J. FRICKE, R. CAPS, E. HÜMMER, G. DÖLL, M. C. ARDUINI, AND F. DE PONTE	575
Minimum Life-Cycle Cost Analysis of Residential Buildings for PC-Based Energy Conservation Standards —A. TULUCA AND J. HEIDELL	587

BUILDING APPLICATIONS AND USER INTERESTS

Computer Modeling of Climates—C. G. CASH	599
Factors Influencing Consumer Insulation Activities—C. B. MEEKS	612
Implementing Thermal Insulation Product Standards—B. D. NELSON	626
Corrosiveness of Residential Thermal Insulation Materials under Simulated Service Conditions—K. SHEPPARD, R. WEIL, AND A. DESJARLAIS	634
The Most Needed Building Foundations Research Products—J. E. CHRISTIAN	655

INDUSTRIAL APPLICATIONS AND TESTS

Case Histories of Underground Heat Distribution Systems: 1959-1986—F. A. GOVAN AND D. R. BAHNFLETH	665
Review of ASTM Guide for Removable Insulation Covers (C 1094)—G. HART	675
New Developments in Test Technology for ASTM C 692 (Preproduction Corrosion Test for Insulation To Be Used on Austenitic Stainless Steel)—T. E. WHITAKER, K. M. WHORLOW, AND F. B. HUTTO, JR.	688
High-Temperature Calorimeter Performance Variable Study—R. L. TROYER	699
An Automated High-Temperature Guarded-Hot-Plate Apparatus for Measuring Apparent Thermal Conductivity of Insulations Between 300 and 750 K—J. G. HUST, B. J. FILLA, J. A. HURLEY, AND D. R. SMITH	710
On the Thermal Insulation of Outdoor Electronic Cabinets—G. GUGLIELMINI AND G. MILANO	723
Heat-Insulating, High-Temperature Materials on Cenosphere Base—Z. IGNASZAK, A. BARANOWSKI, J. HYNAR, AND M. ŻAK	741
Author Index	749
Subject Index	751

Introduction

Since ASTM Committee C-16 on Thermal Insulation was founded in March 1938, its policy has been to sponsor programs periodically that provide the latest information regarding test methods and insulation materials. As a result of these programs, more than a dozen ASTM Special Technical Publications have been published on thermal insulation materials and technology, most of them in the last decade, based on symposia sponsored by the committee.

Activity and interest in thermal insulation have increased as a result of the space program in the 1960s and energy conservation in the 1980s. In 1978, over 500 people participated in a symposium when the topic was enlarged to include not only technical measurement but also all the parameters related to thermal insulation for energy conservation. The trend has continued with sponsorship of conferences and symposia alternating between ASTM and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), with additional sponsorship by both the U.S. Department of Energy and Oak Ridge National Laboratory. Proceedings of the ASHRAE-sponsored conferences are available as ASHRAE Special Publications. The ASTM-sponsored conferences and symposia continue to be published as ASTM Special Technical Publications.

A public awareness of rising energy prices has continued to focus attention on the use of thermal insulation as an effective energy-conserving measure. Research and development in thermal insulation materials, testing methods and apparatus, and innovative applications provide the basis for obtaining substantially improved thermal performance. This volume presents the insulation community with an update on the technical database in residential, commercial, and industrial applications.

ASTM Committee C-16 on Thermal Insulation is pleased to continue to provide the format for discussion and documentation of this complex subject. Also, this conference provides excellent input to Committee C-16 in discharging its responsibility for promulgating standards for insulation materials, systems, and test methods.

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ISBN 0-8031-1278-5