

Insulation Materials, Testing and Applications

McElroy/Kimpflen editors



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



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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.

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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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