

INSULATION MATERIALS

4th
Volume

*Testing and
Applications*



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Foreword

The Fourth Symposium on Insulation Materials: Testing and Applications was held in Charleston, South Carolina on 21–22 Oct. 2002. ASTM Committee C-16 on Thermal Insulation served as its sponsor. The symposium chairs and co-editors of this publication were André O. Desjarlais, Oak Ridge National Laboratory, and Robert R. Zarr, National Institute of Standards and Technology.

Overview

Since its founding in 1938, ASTM Committee C16 on Thermal Insulation has hosted over a dozen symposia pertaining to thermal insulation and its use to increase energy efficiency in residential, commercial, and industrial applications. This Special Technical Publication is the latest product of the most recent of these symposia.

Since the last symposia held in 1997 in Quebec City, significant advances have been made in many aspects of thermal engineering. On the materials side of the ledger, vacuum panel insulations have been developed and a materials specification covering these unique insulation products is now available. The cellular plastic insulation industry has been asked once again to re-engineer their products to address global climate change issues associated with their blowing agents. On the experimental side, we continue to test how good our test methods are through round robins so that we can continue to improve them. Finally, we are developing keen interests in moisture-related material properties as a greater number of building envelope failures appear to be caused by improper moisture control.

The existence of this STP is due to the tremendous efforts of many people. In particular, we would like to thank the symposium organizing committee, the session chairpersons, and all of the authors and reviewers that donated their time to this effort. Special thanks are due to Dorothy Fitzpatrick and Crystal Kemp at ASTM for the organizational skills and their support.

Finally, the editors would like to dedicate this STP to their colleague and close friend David McElroy. Throughout his long association with ASTM Committee C16 on Thermal Insulation, Dave has inspired us with his immeasurable contributions. When he spoke, we all listened because we knew that his comments were well thought out and without bias. There was hardly a ballot item that did not benefit from Dave's critical examination and review. Thankfully, he was always the gentleman and only submitted comments! He will be sorely missed both during and after the business portion of the meetings. Dave, we wish you the best of luck and happiness in whatever endeavor you pursue.

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