

OVERVIEW

The revolution that has occurred in the U.S. roofing industry over the last decade is well known to all. Many roof systems which incorporate elastomeric, thermoplastic, and polymer-modified membranes were unheard of in the early 1970s, but are commonly used today. Improvements in their chemistry and production technology have enhanced the performance of these materials and made them economically competitive. Further, the use of glass- and polyester-based fabrics has essentially replaced the traditional reinforcements for built-up roofing systems. With the arrival of the new membrane systems, innovative methods of membrane securement such as ballasting and mechanical attachment were brought into the industry. A major result of the changes in roofing practices was increasing pressure on ASTM Committee D 08 on Roofing, Waterproofing and Bituminous Materials to develop standards to assist in the proper selection, use, and application of these systems. Committee D 08 has responded well. Many task groups have been formed and are diligently working toward development on the needed standards.

The Proceedings of two symposia describing the changes that have occurred and the needs for research to support development of standards were published in the 1980s -- Single-Ply Roofing Technology, ASTM STP 790 (1982), edited by W.H. Gumpertz, and Roofing Research and Standards Development, ASTM STP 959 (1987), edited by R.A. Critchell. But the work of Committee D 08 is far from finished, particularly in the area of conducting research to support the standards development process.

The members of D 08 firmly believe in the importance of having a strong technical basis for their Committee's standards. The availability of data can help accelerate the standards development process, since decisions can be made on fact and not opinion. In 1987, Subcommittee D 08.21 on Research Needs for Roofing and Waterproofing was formed to: (1) provide information on ongoing research, (2) identify research needed in standards development, and (3) disseminate research results through activities such as workshops and symposia. This symposium represents the first fruits of the Subcommittee's efforts to foster research in the support of standards. It illustrates the commitment made by D 08 to the improvement of roofing technology.

As in the past, this publication is dedicated to the members of ASTM Committee D 08 who give unselfishly of their time and energy to improve the performance of

roofs. The editors express their sincere thanks and appreciation to those many individuals who participated in the organization and conduct of the symposium.

R.A. Alumbaugh, C.G. Cash, E.F. Humm, D.F. Jennings, C.F. Mullen, W.T. Rubel, T.L. Smith, and S.W. Warshaw were members of the Steering Committee. D.E. Richards was a session chairperson. Dorothy Savini, ASTM, provided for the symposium arrangements. Barbara Stafford, Therese Pravitz, Kathy Greene, and other ASTM staff members directed the review and publication of the papers. Finally, special thanks are given to the authors and reviewers of the papers without whose efforts the symposium would not have been possible.

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