

Performance of Exterior Building Walls

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Foreword

The *Symposium on Performance of Exterior Building Walls* was held in Phoenix, Arizona on 31 March–1 April 2001. ASTM International Committee E06 on Performance of Buildings served as the sponsor. The symposium chairman and editor of this publication was Paul G. Johnson, Smith Group, Inc., Detroit, Michigan.

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Overview

This publication is the most recent in a series resulting from symposia presented by subcommittee E06.55 between 1990 and 2001. This Symposium, "Performance of Exterior Building Walls," was held March 31 and April 1, 2001 in Phoenix, Arizona.

In each of these previous symposia a specific subject relating to exterior building walls has predominated. This symposium was different in that the call for papers invited presentations from a broader spectrum of exterior building wall issues. The primary topic was to be the *performance of exterior building walls*. Not leaks, not wind resistance, and not structural evaluation, but *performance*. One of the goals for this symposium was to show the broad spectrum of topics related to exterior building wall performance, and similarly the types of people required to accomplish the goal of good performance. This was the stated goal, to address various performance aspects of exterior building walls. The presenters did a good job of addressing various issues and a good mix of individuals representing the types of parties involved in the design and construction process participated in this symposium. Presentations were made on product development, code issues, seismic considerations, wind evaluation, methods to predict condensation, and more. The presenters included chemists, contractors, structural engineers, architects, educators, and forensic investigators among others. There were also two non-technical presentations. One was from an owner addressing the importance of effective communication. The second was from an attorney, explaining why a leak (physical) may not really be a leak (legal).

All of the presentations and the papers in this publication address ways to improve the performance of exterior building walls, or ways to identify, understand, and avoid the factors leading to failures. As can be seen in these papers, exterior building walls are subject to failure for many reasons, including errors in analysis, design, specification, fabrication, and construction. To a high degree, these failures are preventable if procedures and methods already known are followed. The information provided by this symposium and this resultant publication provides much grist for the mill of building design and construction. There is, however, a separate issue that is perhaps equal in importance to the information provided by the individual papers. There is a vast amount of solid information regarding these issues already available, and more is available every day. Why is this existing information often not applied and used? Why do so many failures continue to occur in exterior building walls, and what can be done to correct this situation? Of course this symposium did not provide all of the answers. What it did was bring together a group of individuals and provide an opportunity to present new ideas, consider old questions in different ways, and provide food for thought on how to attain better performance from exterior building walls. This is perhaps the greater value of these symposia and of these publications; the forum for discussion and a method to make the information widely available.

The members of E06.55 hope to continue with these symposia as a forum for discussion, and the STP publications as a method to record and distribute the wealth of information available to us.

Paul G. Johnson
Smith Group, Inc.
Detroit, MI



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