Eight Symposium on Roofing Research and Standards Development

Sponsored by ASTM Committee D08 on Roofing and Waterproofing

Symposium Co-Chair: Sudhakar Molleti  
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ABOUT THE SYMPOSIUM
Committee D08 on Roofing and Waterproofing has a firm commitment to providing a strong technical basis for its standards. From a practical point of view, the availability of data can help accelerate the standards development process as decisions can be made on fact and not opinion. This D08 symposium on Roofing Research and Standards Development is the eight in a series that dates back to the mid-1980s. The symposium provides a forum contributing to the fundamental understanding of acceptable roof performance. Waterproofing system performance also falls within the scope because waterproofing standards are an integral part of D08’s programs. The primary emphasis for the symposium is on current research and standards development work. Consistent with the title of the symposium series, it is anticipated that the authors, as well as the attendees, will make recommendations identifying areas where standard specifications, test methods, and practices can be developed, or improved, in support of the proper selection and use of roofing and waterproofing systems. Discussions regarding the suitability of such recommendations for consideration in the ASTM standards development process are expected to ensue.

Session papers will reflect a wide variety of technologies and concerns in the following areas:
- Hygrothermal conditions in attic spaces of wooden houses with eaves ventilation
- A test method for a very severe hail rating for low slope roofing assemblies
- Puncture resistance and accelerated aging of TPO membranes
- Air leakage properties of seam-fastened roof membrane assemblies
- Hygrothermal analysis of pitched-roof underlayment assemblies
- Long-term reflective performance of roof surfaces
- Service-life assessment of 55% Al-Zn alloy-coated steel standing seam roof systems
- Performance of low-sloped roof structures with varying surface types and ballast layers
- Thermal performance evaluation of roofing details
- Shear resistance of paving and waterproofing systems

The targeted audience is all roofing and waterproofing professionals, including contractors, architects, engineers, consultants, building owners, researchers, technologists, technicians, sales and marketing personnel, product development specialists, and insurers. This D08 Eight Symposium on Roofing Research and Standards Development begins on Sunday morning and ends late Sunday afternoon. This schedule provides attendees the opportunity to hear all papers without disruption to their normal D08 Committee Week meetings and activities.
SUNDAY, DECEMBER 6, 2015

9:00AM  Opening Remarks
Sudhakar Molleti, Symposium Co-Chair

SESSION I: TESTING AND EVALUATION

Session Chairman: Kimberly Tokarski
Johns Manville
Aurora, Colorado, USA

9:15AM  Developing a Test Method for a Very Severe Hail Rating For Low Slope Roofing Assemblies
D. A. Boardman, FM Approvals, Norwood, Massachusetts, USA

9:45AM  Understanding the Puncture Resistance of TPO Membranes
S. Bhawalkar, T. Yang, and T. J. Taylor, GAF Materials Corp., Troy Hills, New Jersey, USA

10:15AM  Evaluation of Air Leakage Properties of Seam-Fastened Mechanically Attached Single-ply and Polymer Modified Bitumen Roof Membrane Assemblies

10:45AM  BREAK

SESSION II: PERFORMANCE CONSIDERATIONS

Session Chairman: Jennifer R. Keegan
ATI/Intertek
Blue Bell, Pennsylvania, USA

11:15AM  Shear Resistance of Paving and Waterproofing Systems
P. S. Moser and G. R. Doelp, Simpson Gumpertz & Heger Inc., Waltham, Massachusetts, USA and J. Haydu, Bridge Preservation, Riverside, California, USA

11:45PM  Quantitatively Assessing the Life of 55% Al-Zn Alloy-Coated Steel Standing Seam Roof Systems
R. Dutton, Ron Dutton Consulting Services, Annapolis, Maryland, USA and Rob Haddock, The Metal Roof Advisory Group, Colorado Springs, Colorado, USA

12:15PM  Thermal Performance Evaluation of Roofing Details to Improve Thermal Efficiency and Condensation Resistance
E. K. Olson, Simpson Gumpertz & Heger Inc., Waltham, Massachusetts, USA and C. M. Saldanha, New York, New York, USA

12:45PM  LUNCH BREAK
SESSION III: DURABILITY

Session Chairman: Sudhakar Molleti
Symposium Co-Chair

2:00PM  
**Moisture and Durability Performance of Low-sloped Roof Structures with Varying Surface Types and Ballast Layers**  
C. Buxbaum, W. Gallent, and S. Paulitsch, Carinthia University of Applied Sciences, Spittal an der Drau, Austria and O. Pankratz, Heat and Moisture Simulations, Haidershofen, Austria

2:30PM  
**Accelerated Aging of TPO Membranes – Prediction of Actual Performance**  
T. J. Taylor and L. Xing, GAF Materials Corp., Troy Hills, New Jersey, USA

3:00PM  
**Long-term Reflective Performance of Roof Surfaces in the Chicago Area**  
M. Rupar and M. S. Graham, National Roofing Contractors Association, Rosemont, Illinois, USA

3:30PM  
**BREAK**

SESSION IV: HYGROTHERMAL EVALUATION OF STEEP ROOFING

Session Chairman: Maciek Rupar  
National Roofing Contractors Association  
Des Plaines, Illinois, USA

4:00PM  
**Hydrothermal Analysis for Pitched Roof in Consideration of Water Penetration through Pinholes of Roofing Underlayment Assemblies**  
H. Saito, Ashikaga Institute of Technology, Ashikaga City, Tochigi Pre., Japan

4:30PM  
**Study on Hygrothermal Conditions in Attic Space of Wooden Houses with Eaves Ventilation during Winter Season in a Mild Climate Region of Japan**  
D. Matsuoka, Polus R&D Center of Life-Style, Koshigaya, Saitama, Japan

5:00PM  
**CLOSING REMARKS**  
Walter Rossiter, Symposium Co-Chair

5:05PM  
**ADJOURNMENT**