

Overview

Technology of building seals and sealants continues to develop and change. A host of new products and applications have evolved since the first elastomeric sealants in the 1950's, and new sealant technologies are on the horizon. This on-going development has produced some remarkable advances and has kept ASTM Committee C-24 on Building Seals and Sealants busy over the last 34 years as we developed over 70 sealant-related standards.

ASTM C-24 has presented symposia, with resulting ASTM Special Technical Publications (STP), yearly since 1988, to help disseminate current knowledge on all aspects of building seals, and plans to continue this work. This publication contains eight peer-reviewed papers on sealant durability, design, and testing topics.

Durability

Lacasse's paper reviews past research and methods used to assess long-term sealant performance and discusses future research needed to develop test methods. Leonard provides new research data on urethane reversion problems, to add to the pool of data presented in the 1991 and 1992 symposia. Beech continues his research into sealant cure and durability on which he presented his initial findings in 1992. Fiorillo reviews the track record of some polysulfide installations.

Design

Rutila provides some guidelines for designing expansion joint seals in deck waterproofing, to expand on his 1989 paper on building deck waterproofing. Lacasse describes an expert system that he is developing to aid designers in selecting sealants.

Testing

Al-Qadi examines a new laboratory test method to simulate field movement of joints. Wolf describes some new laboratory techniques to assess adhesion to aluminum.

Hopefully, these papers help answer some questions that have arisen in sealant technology recently, provide the foundation for development of new standards, and stimulate further research. ASTM C-24 welcomes your comments and suggestions regarding our symposia program. I thank the authors, peer reviewers, and ASTM staff whose generous contribution made this publication possible.

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