

Selected Technical Papers

STP 1562



Current and Future Practices for the Testing of Multi-Component Geosynthetic Clay Liners

Editors:
Kent P. vonMaubeuge
J.P. Kline

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Foreword

THIS COMPILATION OF *Selected Technical Papers*, STP1562, on *Current and Future Practices for the Testing of Multi-Component Geosynthetic Clay Liners*, contains peer-reviewed papers that were presented at a symposium held June 29, 2012 in San Diego, CA. The symposium was sponsored by ASTM International Committee D35 on Geosynthetics and Subcommittee D35.04 on Geosynthetic Clay Liners.

The Symposium Co-Chairpersons and STP Co-Editors are Kent P. von Maubeuge, NAUE GMH & Company KG, Espelkamp-Fiestel, Germany and J. P. Kline, Geotechnics, East Pittsburgh, PA, USA.

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Overview

The gathering marked the third symposium from Committee D35 focused exclusively on geosynthetic clay liner material advances, with the previous symposia having taken place in conjunction with committee meetings in 1996 and 2003. This third symposium was unique in that it addressed the preceding decade's significant changes in manufacturing technology, design utilization and market acceptance. Geosynthetic clay liners are multi-component materials by their nature, but the new "multi-component" geosynthetic clay liner is one characterized by specially-engineered surface coatings, film attachments, bentonite modifications, and other components that enhance performance in specific ways (e.g., less desiccation, bentonite erosion/piping protection, greater resistance to chemical attack or root penetration).

These material advancements have continued to extend the suitability and survivability of geosynthetic clay liners in a variety of containment designs; but they have also complicated standardization in ways that could inhibit market growth and acceptance if the changes too greatly outpace the standards community's ability to provide guidance and leadership within the larger geotechnical engineering field.

This third symposium provided an exceptional opportunity to bring experts together to better identify changing material characteristics and designs, commonalities among these changes, and testing and standardization needs to better support the engineering community in regards to geosynthetic clay liners.

We would like to thank the authors, co-authors, peer reviewers and ASTM personnel for their time and effort in bringing this publication to fruition.

Kent P. von Maubeuge and J.P. Kline



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