

Preface

RILEM (*International Union of Laboratories and Experts in Construction Materials, Systems and Structures*) is a volunteer organization grouping academics, researchers, testing laboratories, suppliers, and contractors with the aim to promote scientific cooperation in the area of construction materials and structures.

In the field of bituminous materials, since late 1960s, RILEM activities are organized through Technical Committees (TC) that delivered outstanding products such as guides to good practice, recommendations and prestandards, proceedings of symposia and workshops, state-of-the-art reports with extensive data basis, and papers in international journals.

The *8th RILEM International Symposium on Testing and Characterization of Sustainable and Innovative Bituminous Materials* belongs to a series of RILEM Symposia started in 1968 (Dresden) and follows up the last organized in Rhodes six years ago.

Nowadays, the increasing mobility demand and traffic loads call for using innovative high-performance materials and techniques for asphalt pavements and, at the same time, for taking care of environmental concerns in search of more sustainable infrastructures.

For the above-mentioned reasons, the main goal of the symposium is to enhance knowledge on sustainable and innovative bituminous materials as basis for their appropriate and reliable application within the pavement network. Achieving such objectives requires developing and implementing performance-oriented test methods through promotion of international networking and synergies.

In accordance with these objectives, over 80 papers from 26 countries were accepted after a rigorous peer review addressing the following topics:

- Characterization of binder–aggregate interaction;
- Innovative testing of bituminous binders, additives, and modifiers;
- Durability and aging of asphalt pavements;
- Mixture design and compaction analysis;
- Advanced characterization of interlayer systems;
- Modeling of road materials and pavement performance prediction;

- Environmentally sustainable materials and technologies;
- Advances in laboratory characterization of bituminous materials;
- Field measurement and in situ characterization;
- Recycling and reuse in road pavements;
- Cracking and damage characterization of asphalt pavements.

As it can be seen, the content of these proceedings appeals not only to researchers and students at university level but also to practitioners and decision makers providing an update on latest environment-related developments and performance-based evaluations in the field of testing and characterization of sustainable and innovative bituminous pavement materials and technologies.

We trust that the rigorous experimental approach and theoretical background adopted by the authors of the accepted papers will contribute to a further leap toward sustainable applications of bituminous road materials.

Moreover, we hope that the pavement engineering research community will understand this symposium as an opportunity to strengthen its efforts in fostering the environmentally friendly use of asphalt products for the sake of future generations.

For this reason, the editors would like to thank the RILEM Steering Committee of this symposium for supporting the main strategic decisions and all authors and reviewers for contributing to the excellent quality of the accepted papers. Their effort is highly appreciated.

Finally, we would also like to acknowledge the invaluable contributions from the Local Organizing Committee with its enthusiastic members, who have tirelessly dedicated time to the success of the symposium.

Ancona
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