International Union of Laboratories and Experts in Construction Materials, Systems and Structures,

Réunion Internationale des Laboratoires et Experts des Matériaux, systèmes de construction et ouvrages

Kamal H. Khayat
Director Center for Infrastructure Engineering Studies,
Professor, Civil Engineering
Missouri University of Science & Technology
Founded in 1947 mainly to:

• renew international relations & international cooperation between institutions for testing and research on materials and structures

• promote scientific cooperation in the area of construction materials & structures
over the years, RILEM mission grew to include:

- stimulation of **new directions of R&D**
- promotion of **excellence in construction**
- **technology transfer** and application of knowledge world-wide
- encouragement of **international cooperation**
Material Processing and Characterization
Nicolas ROUSSEL

Transport and Deterioration Mechanisms
Nele DE BELIE

Structural Performance and Design
Takafumi NOGUCHI

Service Life and Environmental Impact Assessment
Kefei LI

Masonry and Timber
Paulo LOURENCO

Bituminous Materials and Polymers
Hervé DI BENEDETTI
Nearly 1400 experts involved in RILEM
About 700 of members active in Technical Committees

2014

63 Countries, 102 Institutes
Regional Conveners
South Saharan/Africa
East Asia
East Europe and Central Asia
Latin America
North America
Oceania
Europe
Middle East, North Africa & South Asia
Dissemination of information

State-of-the-Art Reports
Recommendations on test methods
Conference Proceedings
Scientific Journal
Website

TC 221-SHC
SOARs available on-line
Continuous fiber-reinforced materials with polymeric matrix (FRP) and cementitious matrix (FRCM) are widely used for strengthening of civil structures.

Predictions of the various documents/guidelines are sometimes contrasting between themselves and disagreeing with experimental results related to particular applications.
The development and use of new types of cement and concrete requires reassessment of testing procedures, to enable us to accurately assess the performance of materials which are chemically different from Portland cement. This TC is assessing the methods available for durability testing of alkali-activated concretes through an international round-robin testing program.

**TC 247-DTA Durability Testing of Alkali-Activated Materials**

*Chair: Prof. John PROVIS  Secretary: Dr. Frank WINNEFELD*

- Carbonation
- Sulfate
- Alkali-Aggregate Reactions
- Chloride
- Freeze-thaw

**Diagram:**

- a. Rubber sleeve
- b. Anolyte
- c. Anode
- d. Specimen
- e. Catholyte
- f. Cathode
- g. Plastic support
- h. Plastic box

**Binder content**

- 300 kg/m³
- 400 kg/m³
- 500 kg/m³
**TC 244-NUM** Numerical Modelling

Chair: Prof. Klaas van Breugel    Secretary: Prof. Wolfgang Brameshuber

Task of TC 244: To consider, and reconsider, the evolution of numerical models and modeling of cementitious materials in science and engineering, given the present evolution of available computation power and advanced materials models.

Materials properties:
- Hydration processes
- Evolution of nano/microstructure
- Mechanical properties
- Transport properties

Modelling and application aspects:
- Type of models
- Multiscale modelling
- Accuracy and reliability
- Field of application of models
TC (AAA) Avoiding Alkali Aggregate Reactions in Concrete Performance Based Concept (2014 –2019)

Chair: Prof. Børge Johannes WIGUM – Norcem R&D
Secretary: Dr. Jan LINDGÅRD - SINTEF

- WP1: Accelerated performance testing in laboratory
- WP2: Link laboratory vs. field; exposure sites
- WP3: Assessment of detailed alkali household in concrete, including internal aggregate release, recycling and external supply
Discussions with ACI in Paris, 18 Sept. 2014

Bill Rushing, ACI President;
Ron Burg, ACI Executive Vice President
RILEM: Johan Vyncke, VP; Pascale Ducornet, SG; Nicolas Roussel, TAC Chair

• Selected Points for Consideration:
  – RILEM liaison member in ACI TCs
  – Reciprocal Membership at reduced rates
  – ACI - RILEM Joint Workshop on a specific technical topic (e.g. run joint sessions at ACI conventions, ACI and RILEM speakers; jointly publish session reports)
  – Explore potential synergies for ACI and RILEM running TC’s