

Minutes

of the Informal Meeting of RILEM TC-TDC in Cape Town

September, 2nd and 5th, 2012

Time	13:00-16:00, Sep 2 nd , 2012 15:30-17:30, Sep 5 th , 2012.
Venue	UCT Graduate School of Business, V&A Waterfront, Cape Town, UCT Main Campus, Classroom 2B, Cape Town
Main Subjects	<p>Tasks of Group A:</p> <ol style="list-style-type: none"> 1. Deadline for collecting references to be included in the Annotated Bibliography. 2. To which extent should the bibliography annotated. 3. Next steps of Group A. <p>Tasks of Group B:</p> <ol style="list-style-type: none"> 1. Types of load combinations; which combination should be selected first. 2. Details of the planned round robin test 3. Next steps.
Participants	All together 16 persons attended the meeting in Cape Town: Mr. Michel Alexander, Prof. Carmen Andrade, Prof. Nele De Belie, Prof. Mette Geiker, Prof. M. A. Glinicki, Prof. Markku Leivo, Dr. Juan Li, Prof. Erik. Schlangen, Prof. Max Setzer, Prof. Roberto Torrent, Prof. Xiaomei Wan, Prof. Ling Wang, Dr. Zhengdi Wang, Prof. F. H. Wittmann, Prof. Tie-jun Zhao.
Moderators	Wang Ling and Li Juan
<p>1. Opening of the meeting</p> <p>Dr. Juan Li, the secretary of Group B, introduced the agenda at the beginning of this meeting. Then, all participants briefly introduced themselves and briefly described their research fields. The chairlady of the RILEM TC, Prof. Yan Yao, could not attend the meeting because of other urgent commitments.</p> <p>Prof. Wang Ling presented an overview of major results obtained during the meeting held in Beijing in May and she summarized the work of TC-TDC in the first year. She pointed out that three meetings are on the agenda for the coming two years, namely, in Qingdao in April or May 2012, in Paris during the first week of September, and September 2014 in Brazil. It is hoped that all CT members can make their travel arrangements well in advance in order to guarantee sufficient participation in forthcoming TC meetings.</p> <p>Next, Dr. Zhendi Wang described the progress made so far with the compilation of an annotated bibliography, which is the main task of Group A in the first year. Sources of literature, the classifications and the format for publication have been discussed. General agreement has</p>	

been achieved. By now, 144 publications in total, including papers, Theses and books are included in the annotated bibliography. Sincere thanks have been expressed to all colleagues who submitted publications to Group A. More publications will be collected. Hopefully annotated bibliography can be finalized and distributed among the members of the TC before the meeting in Qingdao.

2. Conclusions of Group A

1) Group A will stop to collect papers by the end of the year. This deadline has been extended later.

2) So far it is not yet an annotated bibliography. A short summary need to be added to each section. Most probably there will be a next TC meeting in Qingdao in May 2013. By then, we try to reach the final version of the annotated bibliography.

3) Some features still need to be added to the annotated bibliography as for instance easy access to the full length papers.

3. Conclusions of Group B

3.1 requirements for round robin tests

1) The most important requirement for a standard test, which ought to be run in as many laboratories as possible, is simplicity of the test. Many standard laboratories from different parts of the worlds should be able to run such a test following a RILEM recommendation.

2) The test results should be applicable directly to quantify the influence of a given load combination on service life of reinforced concrete structures under given environmental conditions.

3.2 Details for first comparative test series

1) in the work of TC-TDC the focus is placed on the following two load combinations:

(a) Diffusion coefficient under simultaneously acting compressive load and tensile load respectively.

(b) Rate of carbonation under simultaneously acting compressive load and tensile load respectively.

Suggested specimen size: 100 x 100 x 400 mm.

2) Two opposite surfaces should be sealed with epoxy resin or self-adhesion aluminum foil in order to impose one-dimensional diffusion only. Then the finished and the bottom surfaces will be exposed to 5 % aqueous chloride solution or to accelerated carbonation (for instance in an atmosphere with 5 % CO₂ and 75 % RH).

3) The specimens shall be under predetermined compressive or tensile stress.

4) All specimens should be allowed to harden for 28 days under water (to be saturated at the beginning of the test;

6) Duration of exposure to NaCl solution and to an atmosphere with high CO₂ content: 0. 7 days and 28 days. According to the results obtained this duration is to be prolonged.

7) Suggested load levels under compression: 0, 30 and 60 % of the ultimate load. Load levels under tension: 0, 60 and 80 % of the ultimate load.

4. Tentative timetable and corresponding TC members for specified tasks

Task	Responsible TC member	Deadline
Redaction and distribution of minutes	Wang Zhendi	Sept. 20
Sketch of test rigs Draft of test method	E. Schlangen and F. H. Wittmann	Oct.10, 2012
Comments from TC members		January, 2013
Preliminary design of test rigs	E. Schlangen and F. H. Wittmann	Dec. 15, 2012
Construction of the test rigs and first experiments		May 2013