

## Conference report

### **RILEM International conference on early age cracking in cementitious systems (EAC'01) Haifa, March 2001**

The RILEM international conference on early age cracking in cementitious systems (EAC'01) was held in Haifa, Israel, from March 12 to 14. The conference was supported by the National Building Research Institute of the Technion, Israel Institute of Technology, The Israeli cement producer Neshet – Israel Cement Enterprises and the Municipality of Haifa.

The conference was sponsored by the RILEM Technical Committee TC 181-EAS “early age shrinkage induced stresses and cracking in cementitious systems” and it brought together 70 participants, most of them outside of Israel. The conference objective was to serve as a stage for the presentation of up-to-date research on early age cracking issue, which has re-surfaced as a key issue in modern concrete technology. This is largely the result of application of new means to control cracking (e.g. fiber reinforcement and shrinkage reducing admixtures) and the development of a variety of new concretes of superior performance in the fresh and hardened state, that may be more sensitive to early age cracking (e.g. high strength concretes of low water/binder ratio,  $w/b$ ).

To deal with this issue on the scientific and engineering level, there is a need for a comprehensive understanding and treatment of early age cracking. Such an approach is much more complex than the simplistic treatment, where cracking sensitivity is quantified in terms of length changes. This was clearly highlighted in the 35 papers presented in the conference, which addressed the issue from a variety of points of view. The

discussion during the conference advanced our understanding of the significance of the synthesis of the various views.

The issue of early age cracking was addressed from five points of view: driving forces, engineering properties, analytical models, testing techniques and special cementitious systems.

The papers presented in the conference covered the variety of points of view, which need to be addressed in order to develop a comprehensive approach to deal with early age cracking. Lively discussions developed around some of the issues, covering a wide range of questions, from portland cement quality and production to concrete practices. The conference clearly highlighted the trend in the research community to provide a greater focus on issues of technological significance, based on fundamental scientific concepts, which are of need to the engineering community to solve problems of early age cracking.

A pre-proceeding was provided to the conference participants. The final proceeding will be soon published by RILEM.

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