

Preface

Over the past years, there has been a significant effort in the research, development and application of fibre-reinforced concrete (FRC). This has been promoted by the introduction of FRC in major national and international codes of structural concrete (ACI 318, MC 2010 and the incoming EC2 among others). However, the long-term behaviour of FRC under sustained load is still a controversial topic in both scientific and technical forums.

One of the main issues to consider this phenomenon in codes lies in the absence of validated and widely accepted models to predict it and standardized testing methodologies to quantify creep in FRCs. The knowledge of the creep response on cracked FRC elements is essential to ensure the viability of structural applications of this material and has important consequences on structural durability and safety. In 2014, a new technical committee was created in the frame of RILEM: the RILEM TC 261-CCF, entitled “Creep behaviour in Cracked Sections of Fibre Reinforced Concrete”. The TC 261-CCF is in charge of compiling information on this topic, as well as of reaching a consensus about creep test methodologies and the considerations for the analysis of the results. One of the proposed activities of this TC was the organization of a RILEM workshop, with the aim of including in a publication all collected updated researches and results on the topic.

With this objective, the *FRC-CREEP 2016—International RILEM Workshop on Creep Behaviour in Cracked Sections of Fibre Reinforced Concrete* took place in the “Universitat Politècnica de València” (Spain) during 9–10 March 2016. The *FRC-CREEP 2016* was proud to welcome 35 attendees from 16 countries, and 20 lectures were presented and discussed. Most of the active researchers in the field took part in this event, which was a great occasion to share experiences and establish points of interest for future studies.

The technical activity of the workshop was scheduled in four general sessions, with an additional conference of the Honorary Chairman Ravindra Gettu and two round tables in order to promote the discussion on two specific aspects: the “Creep Testing Methodologies and Results interpretation” and “When creep in a cracked section of structural FRC elements is an important issue”. This book presents the proceedings of the workshop.

I would like to take advantage of this preface to state my sincere gratitude to the following people:

- Ravindra Gettu, for promoting the event as the Workshop Honorary Chairman;
- The round tables' organizers Giovanni Plizzari and Claudio Mazzotti, for accepting the challenge of generating discussion on essential aspects;
- The authors for their invaluable technical contributions and willingness to share their research;
- The scientific committee for their collaboration and dedication to the revision of technical articles, a critical process to ensure a high technical quality and achieve valuable proceedings;
- The workshop sponsors for the generous support and collaboration;
- The “Universitat Politècnica de València” and the “Civil Engineering School” that provided the facilities and the infrastructure to hold the workshop;
- The contribution of the organizing committee, the support group, and specially of Aitor Llano who made this project a success.

Finally, I would like to thank all participants, whose interest and enthusiasm made this workshop a first-class and enriching event for all.

Thanks to all of you for your contribution.

Valencia, Spain

Pedro Serna
FRC-CREEP 2016 Workshop Chairman

Creep Behaviour in Cracked Sections of Fibre
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Serna, P.; Llano-Torre, A.; Cavalaro, S.H.P. (Eds.)

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