THE INITIATION OF NEW SUB-COMMITTEE SC 10 – FIBRE CONCRETE AT NTC 36 CONCRETE STRUCTURES

H. Hanzlová[1], J. Krátký[2], J. Vodička[3]

Abstract

The paper will present the initiation and activities of new sub-committee Fibre Concrete (SC 10) at the National Technical Committee (NTC 36) Concrete Structures. It will inform the technical community about the personal cast of the committee and about the ideological content of its work.

Keywords: fibre concrete, national technical committee, sub-committee

1. Introduction

At the properly meeting of National Technical Committee – NTC 36, held on 26.5.2010, was approved the creation of new subcommittee 10 for Fibre Concrete – SC 10. This meeting of NTC 36 was attended by Assoc. Prof. Ing. Jan Vodička, PhD. and Ing. Hana Hanzlova, PhD.

At the first meeting of SC 10 – Fibre Concrete, the members (which were delegated from range of producers of fibres – Ing. Petr Herka (KrampeHarex CZ), producers of fibre concrete Ing. Vladimír Veselý (BETOTECH, s.r.o) and from the academic sphere - Assoc. Prof. Ing. Jiří Krátký, PhD., Assoc. Prof. Ing. Jan Vodička, PhD., Assoc. Prof. Jitka Vašková, PhD., Ing. Hana Hanzlová, PhD., Ing. Michal Drahorád – CTU in Prague, Faculty of Civil Engineering, Department of Concrete and Masonry Structures and Ing. Jiří Kolísko, PhD. – CTU in Prague, Klokner Institute) discussed the nomination of the Subcommittee Chair - Ing. Hana Hanzlova, PhD. Furthermore, the subcommittee proposed as Secretary Ing. Michal Drahorád. Chair and secretary were subsequently approved by the subcommittee members present. Doc. Ing. Jan Vodička, PhD. and Assoc. Prof. Ing. Jiří Krátký, PhD. stated the meeting briefly with the commentary of reasons which led to the creation of a subcommittee for fibre concrete, with pre-outlined objectives and content of the subcommittee's work. The first step is to unify a wide range of available technical standards and regulations for testing of fibre concrete, particularly in terms of its characteristics required for the design, and then unify the procedures for the design of fibre structures.

[1] Hana Hanzlová, CTU in Prague, Faculty of Civil Engineering, Thákurova 7, 166 29 Prague 6, hana.hanzlova@fsv.cvut.cz

[2] Jiří Krátký, CTU in Prague, Faculty of Civil Engineering, Thákurova 7 166 29 Prague 6,

[4] Jan Vodička, CTU in Prague, Faculty of Civil Engineering, Thákurova 7, 166 29 Prague 6, jan.vodicka@fsv.cvut.cz

2. Materials for the work of the Committee

Members of the Commission summarized the existing documents, which could be used as a basis for subcommittee working. Available are:

- Specifications TP FC 1-1: Fibre Concrete - Part 1 Testing of fibre concrete - destructive testing and evaluation of the characteristic diagram fibre concrete work for the design of fibre structures (December 2004)
- PN CMB 01-2008: fibre concrete (FC) - Specification, performance, production and conformity
- BS EN 1992-1-1 (73 1201) Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings
- DBV-Merkblatt – Stahlfaserbeton
- DAfStb-Richtlinie – Stahlfaserbeton
- Draft Model Code fib 2010

3. Subcommittee Objectives

Objectives of the subcommittee for Fibre Concrete were summarized by the members of subcommittee. Subcommittee will try to produce and to put into effect the technical regulations for fibre concrete that will be **compatible with European standards for concrete structures**, both for plain (unreinforced) fibre concrete as well as for fibre concrete reinforced by standard reinforcing steel and prestressing steel. The whole issue will be divided into the following basic areas:

- **Tests** - standard approach to testing of fibre concrete with a focus on design of fibre concrete bearing members (product standard).
- **Design** - standard practice of structural design (computational methods), taking into account the characteristics of fibre concrete (increased ductility, tensile strength after makrocracks,…)

Product, element → test (unified specimens, the same test arrangements, the same speed of loading) → + features a working diagram that the manufacturer was able to guarantee fresh fibre concrete (basic shapes, working diagrams are given in standard) → use of design elements (uniform procedure for all types of structures).