CEN/TC 104/SC 1/TG 10 „Conformity Evaluation“

Minutes

8th Meeting of CEN/TC 104/SC1/TG 10 “Conformity Evaluation”

Place: Gent University
Department of Structural Engineering
Magnel Laboratory for concrete research
Technologiepark-Zwijnaarde 904
9052 Gent (Belgium)

Date: Friday, 21 January 2011

Time: 10:00 hrs to 16.00 hrs

Participants: Vesa Anttila (FI), Olaf Aßbrock (DE, Secretary), Hervé Beinish (CEN/TC 229), Rolf Breitenbücher (DE, Convenor), Robby Caspeele (BE), John Gibbs (ERMCO), Tom Harrison (UK), Ann Lambrechts (BE), Joaquín Romero Postiguillo (ES), Jean Marc Potier (FR)

Apologies: Erik-Jan de Bont (NL), IB Jensen (DK), Billy Lebon (BE), José Angel Lechuga (ES), Giuseppe Marchese (IT), Lars Meyer (FIEC), Markus Peterson (SE), Michela Pola (IT), Tomasz Szczygielski (PL) , Jim Troy (ERMCO)

1 Welcome and Opening of the meeting TG10-096

The meeting was opened by **Rolf Breitenbücher**. He thanked Robby Caspeele and Gent University for their kind hospitality in hosting the meeting of TG 10.

2 Adoption of the agenda TG10-097

The agenda was adopted without any changes.

3 Approval of the minutes of the meeting on 4 October 2010 TG10-092

The minutes of the meeting on 4 October 2010 were approved without any changes.

4 TG 10 proposals for 2010 revision of EN 206-1

4.1 Fibre content: initial test, conformity criteria, fpc, identity testing TG10-091

The **participants** continued the discussion on the quality scheme for fibre concrete. **Olaf Assbrock** explained the proposals of document TG10-091 related especially to fibre content. As a result of an intensive discussion the **participant**s agreed to propose a combined criterion for fibre content and homogeneity of mixing of the fibres. It was noted that the factory production control (fpc) in the case where fibres are added to the mixer in the plant is based on the documented procedures for the batching of fibres. In the case where fibres are added to the truck mixer it should be additionally proven that the fibres are homogeneously mixed in the concrete. In this case ´homogeneity´ should be part of conformity control. Consequently an additional line is added to ´table 18: Conformity criteria for consistence, air content and homogeneity of fibre distribution of fresh concrete´. This conformity test shall be performed in the same frequency as given in table 13 for compressive strength.

The following table was agreed as a combined criterion for conformity and identity of fibre content and homogeneity.

Table B#: Combined Identity criteria for fibre content and homogeneity of fresh concrete

Applicable to	Criterion
Each sample	≥ 0,80 of the specified minimum value
Average of 3 samples from a load	≥ 0,85 of the specified minimum value

Additionally the **participants** discussed how homogeneity could be verified in the initial testing of concrete. After a short discussion the following wording for annex A of EN 206-1 was agreed for both cases of adding fibres directly to the mixer or alternatively to the truck mixer.

*Where fibre concrete is to be produced, the initial testing shall verify **by testing** that the producers documented procedure achieves a homogenous distribution of the fibres throughout the batch. The testing shall satisfy the criteria in annex B.5.*

Olaf Aßbrock will draft a new version of document TG10-091 taking into account the results of the discussion.

Remark: The new version was distributed to TG 10 with document TG10-102.

4.2 Definition of production day and week TG10-091

Olaf Aßbrock explained the new proposal for the definition of ´production day´ and ´production week´ submitted by ERMCO. **Tom Harrison** gave the information that internal discussion in ERMCO is not finalized on this topic. The compromise proposal is still being considered by ERMCO. And while it is acceptable to some ERMCO members it has been rejected by others as not reflecting their current practice.

After discussion the **participants** confirmed the following definition of a ´production day´.

Production day
Day during which concrete from a family or designed concrete that is outside a family is produced.

To overcome the problem of the definition of a ´production week´ this definition was deleted. In table 13 the term ´production week´ is replaced by a specific number of ´production days´. The following wording of table 13 was agreed. For non-certified concrete footnote c was added to table 13.

Table 13 — Minimum rate of sampling for assessing conformity

Production	Minimum rate of sampling		
	First 50 m^3 of production	Subsequent to first 50 m^3 of production[a]	
		concrete with production control certification	concrete without production control certification
Initial (until at least 35 test results are obtained)	3 samples	1 per 200 m^3 or 1 per 3 production days	1 per 150 m^3 or 1 per production day[c]
Continuous[b] (when at least 35 test results are available)		1 per 400 m^3 or 1 per 5 production days[d]	

a Sampling shall be distributed throughout the production and should not be more than 1 sample within each 25 m^3.

b Where the standard deviation of the last 15 or more test results exceeds the upper limits for s_n according to table ##, the sampling rate shall be increased to that required for initial production for the next 35 test results.

c Except where the production is under 20m^3/per day. If for organisational reasons the producer is unable to sample this low volume of production, this concrete shall be sampled and tested on the next production day.

d Or seven consecutive calendar days

Olaf Aßbrock will draft a new version of document TG10-091 taking into account the results of the discussion.

4.3 Draft TG 10 proposals for 2010 revision of EN 206-1

TG10-091, 101
TG10-098, 099, 100

- notified Spanish regulation

The proposal for a new Annex XXYYZZ documented in TG10-100 was confirmed. By this annex the special situation in Spain is explained that there is a requirement for the consumer risk to be not greater than 50% where the population in the assessment period has exactly 5% of all possible results below the characteristic strength. Alteration of this national regulation is outside of the competence of CEN/CENELEC members. For the application of EN 206-1 in Spain the national regulation remains valid and Spain is free to use different coefficients in formulation presented in section 8.2.1.3.2 (method B).

Olaf Aßbrock will include this proposal in the new version of the TG 10 proposals for the revision EN 206-1.

- Annex XYZ:
  application of Shewhart charts with fixed sigma?
  table with CUSUM V-mask parameters for target values below 1,96 sigma?

Olaf Aßbrock reported that he had received comments to change annex XYZ.3 ´Control based on Shewhart charts with modified limits by variables´ on the basis of applying this method with a ´fixed sigma´. This would be in line with the other methods for conformity evaluation mentioned in EN 206-1. During the meeting a new proposal could not be found.

Remark: After the meeting a new proposal using a ´fixed sigma´ with Shewhart charts was submitted by Robby Caspeele. The new proposal is part of document TG10-102, annex XYZ.3.

The **participants** discussed whether in annex XYZ a table with different V-mask parameters for target values below 1.96 sigma should be included. It was noted that annex XYZ describes just an example procedure and it was agreed that it should not contain further examples V-mask parameters. These can be found in the ´background information on the use of control charts´ (see document TG10-094 and item 4.4 of the agenda).

- final version of text proposals

Olaf Aßbrock will include the results of the discussions in a new version of the TG 10 proposals for the revision EN 206-1. Members of TG 10 are asked to send their comments within three weeks so that possible comments can be considered before the next meeting on CEN TC 104 SC 1 TG 18 ´Editorial Panel´ on 28 February/1 March 2011.

Remark: The new version (TG10-102) was sent out to TG 10 members by email on 31 January 2011 asking for comments by 21 February 2011.

4.4 Confirmation of background information on the use of control charts TG10-094

Document TG10-094 was confirmed as background information on the use of control charts. It was agreed to send this document together with the final proposal for the new version of EN 206-1 to TC 104 SC 1 for approval.

4.5 Report to TC 104/SC1 for its meeting in June 2011

TG 10 members agreed that the next report to TC 104/SC 1 should be drafted in the format of a text proposal for prEN 206:201x. This work will be done by Olaf Aßbrock when the new document versions are approved by TG 10 and TG 18. The proposal shall be supplemented with a short explanatory list of the main changes and new clauses compared to EN 206-1:2000.

5 Further Actions

All necessary further actions were discussed under items 4.1 to 4.5 of the agenda.

6 Next Meeting

The following date and place of the next meeting were agreed.

Tuesday, 12 July 2011, 10.30 to 16.00 hrs approximately
British Standards Institution (BSI), London, United Kingdom

Remark: The meeting planned for 10 March 2011 was cancelled because all remaining items could be discussed.

Bochum/Duisburg, 24 February 2011

signed Rolf Breitenbücher
- Convenor -

signed Olaf Aßbrock
- Secretary -