

CEN TC 217 "Surfaces for Sports Areas"

Meeting WG 2 "Sports Hall Surfaces" on December 22, 2004, in Valencia

The meetings' objectives were to review the comments received during the recent enquiry regarding the following draft standards :

- Method of test for Shock Absorption prEN 14808
- Method of test for Deformation prEN 14809
- Method of test for Rotational Friction prEN 14903
- Specification for Indoor Multi-sports Surfaces prEN 14904

and to allow these draft EN standards to progress to the formal vote stage.

Details of the discussion on test methods are presented below with individual notes.

Specification for indoor multi-sports surfaces prEN 14 904 and Results of Enquiry (document N419 September 2004)

The paragraph entitled "Information to be provided by the manufacturer" was deleted because manufacturers cannot give the assurance required. By deleting this whole paragraph, the numbering of the 2005 version of the prEN 14904 has changed.

A link to prEN/TS (TS = Technical Specification) 15122 "**Resistance to repeated impact of synthetic sports floors**" remained unchanged although this test is not part of the test procedures reflected in this standard (informative statement in Annex A). The delegates did not address the problems involved with this test. The upcoming Formal Vote on the TS will hopefully result in a show of the objections to this test (test has not been validated and contains an 'over-kill' characteristic when applied to sports hall floors). Therefore both the link and Annex A should be deleted.

Friction: Only the Pendulum Tester acc. EN 13036-4 (British Road Tester) was endorsed with the requirements (80 - 100) although no information about accuracy or validity of requirements for sports hall surfaces is available. Since concerns were brought up by various countries, the Rotational Sliding Tester prEN 14903 will be modified by the Austrian delegate acc. to the principles of DIN 18032-2 or IAAF Performance Specifications respectively prior to this test being included in the Specification of Sports Hall Surfaces.

Shock Absorption will be determined using the Berlin Artificial Athlete only (i.e. now only 1 method!). The requirements specify an extremely wide range of surface characteristics. However, in the informative Annex B typical values for the various surface systems are given. Unfortunately, the question of filtering was cut-off by the chairman since it had been discussed at length previously. As it stands, this statement is not acceptable since serious doubts about the scientific reasoning remain (the correction is to specify a Butterworth 9-pole filter; see papers of Mark Harrison and Hans Kolitzus). Thus, it is advisable in the testing practice to treat the force signal with both filters simultaneously.

Vertical Deformation (Standard Deformation) will be determined with the Stuttgart Artificial Athlete only (i.e. single method). A conflict exists in the requirement as it states that the Vertical Deformation shall not exceed 5.0 mm whereas the informative Annex B states values up to 6.5 mm (needs to be corrected before FV).

Vertical Ball Behaviour: the WG recognized that EN 12235 may be misleading by defining the reference rebound height of basketballs on concrete to be 130cm (this is the definition of FIBA for top of ball). Since all measurements of EN 12235 are made to the bottom of the ball,

the definition of the reference height is specified 105cm (=130 - diameter of basketball). The TC will be requested to accept this as an obvious error so that no new version of the standard needs to be issued.

Rolling Load: it should be clarified that the indentation is considered the Remaining Indentation after the test (max. 0.5mm under 300mm straight edge).

Resistance to Wear: the requirements have been changed considerably. Synthetic Surfaces shall be tested acc. ISO 5470-1 using the H18 wheel (stone wheel) and a 1kg load. The maximum loss in mass shall not exceed 1000mg per 1000 cycles. However, coatings and lacquers to be applied as part of scheduled maintenance shall be tested using the CS10 wheel (rubber wheel) with 0.5 kg load. The maximum loss in mass shall not exceed 80mg per 1000 cycles.

Reaction to Fire: this item had to be included according to CPD (Construction Products Directive) rules. The test procedure is specified in accordance with EN 13238:2001. Classification is performed acc. EN 13501:2001. The standard contains a list of minimum classifications for prefabricated floor coverings (min. E_{fl}) . Parquet and solid wood flooring shall be a minimum class of C_{fl-s1} and D_{fl-s1} .

Initial Type Testing: addresses important information on regarding variations of a specific product as a product family. This facilitates the process of assigning a CE mark when introducing a product to the market.

Annex A should be deleted since there are no requirements in the standard. Even as an informative part of the standard it is confusing and may lead to abuse in product marketing.

Annex B: the information about typical values of force reduction and vertical deformation is simplified and clearly presented in tables, thus ending the confusion with the graphs.

Annex ZA (informative): numerous changes have been made by the CEN consultant.

It was explained by the CEN experts that individual countries may set tighter requirements than those detailed in an EN standard providing they fell within the overall EN standard range and the tighter requirements were based on existing national regulations. These may be included only as a recommendation in the forward of the national version of the standard.

As soon as the specification has been completed/updated acc. to the findings of the meeting, it will be delivered to the CEN secretariat for the Formal Vote process (FV). If the formal vote is positive, the specification should be published as a European Standard towards the end of 2005 or early 2006. Once published manufacturers will be able to test their products and affix CE marks to them.

HJK
3.3.05