

Members' Briefing



No: 17/2017

25 October 2017

MPA Update on the Development of European Aggregate Standards

Introduction

The production of the 2nd generation aggregate harmonized European standards (hENs)¹ has been underway for some time, but has become more protracted than originally envisaged.

In order for these standards to be operational under the EU Construction Products Regulations (CPR), not only does their technical content have to be accepted by a majority of the EU member state standardization bodies, but all parts of the standards must be acceptable to the European Commission (EC), including the important Annex ZA.

Only if this second condition is met, may the standard be published in the Ordinary Journal of the European Union (OJEU) and thus the standard becomes operational for the purpose of CE Marking of products. It is this second stage of verification that has caused some problems and the aggregates committee of MPA is therefore publishing this short update in order to inform UK industry on progress to date and the anticipated next steps. In the meantime, products should continue be produced and CE Marked to the (2002) version of the standards (including Amendment 1) as published² in OJEU.

Progress achieved

The positive news is that in April 2017, all the 2nd generation standards for normal weight aggregates received a positive formal vote through the European CEN process.

This means that the technical content of the standards was acceptable to the CEN standardization bodies. The positive vote covers the following product standards:

- EN 12620, Aggregates for concrete;
- EN 13043, Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas;
- EN 13242, Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction;
- EN 13139, Aggregates for mortar;
- EN 13383-1, Armourstone – Part 1: Specification;
- EN 13450, Aggregates for railway ballast.

In addition, the “Assessment and Verification of the Constancy of Performance of aggregates (AVCP) - type testing and factory production control” is now in a separate new standard EN 16236, although much of the text was previously present in the relevant product standard Annex on Factory Production Control.

The most significant technical changes introduced compared with the previous edition include:

- a. Harmonization of vocabulary and the text of Annex ZA to be consistent with the EU Construction Products Regulations (CPR), both of which are essential for a standard to qualify as a harmonized European Standard (hEN);
- b. Unification of categories which are common across the four main aggregate standards: EN 12620, EN 13043, EN 13139 and EN 13242;
- c. Addition of a new normative Annex A dealing with all source materials now deemed to be within scope, including primary, recycled and manufactured;
- d. Unification of definitions which are common across the four main aggregate standards: EN 12620, EN 13043, EN 13139 and EN 13242, i.e. for coarse, fine, all-in aggregates and natural graded 0/8 aggregates;
- e. At the request of various member states, modifying and/or adding new category ranges for some properties of aggregates (including in the case of fines quality, all-new categories for sand-equivalent and methylene blue test results);
- f. At the request of member states adding the following new properties for specific product standards:
 - I. For unbound aggregates (EN13242) ‘water suction height’ and ‘freeze thaw resistance in the presence of salt’ with categories;
 - II. For armourstone (EN13383-1) the removal of the previous minimum density requirement and a change in the method of declaring density;
 - III. For track ballast (EN13450) percentage of crushed particles, freeze-thaw resistance” and electrical conductivity.

The lightweight aggregate standard EN 13055 has also been revised, the former two parts now having been combined into one. Other changes include those corresponding to those introduced into the “heavy weight” standards plus: reference of certain aggregates to other aggregate standards; replacement of 3 former test method annexes with normative references to new, separate EN test method standards; and a new informative Annex D describing a test method for determination of water absorption for fine LWA.

The documentation has passed formal vote and has been published by CEN, but is not published in the Official Journal of the EU (OJEU) which means that it is not possible to use the standard for CE marking under the CPR.

Dealing with the Challenges

Whilst the various product standards have passed formal vote, they have received a negative assessment from the CEN consultant³ and are not yet approved by the EC for publication in OJEU. This means that until they have been cited, it will not be possible to use the revised and published standards for CE marking under the CPR. Negotiations are underway to resolve this and it seems likely that there will be a twin track approach to resolve this, as follows:

1. Matters to be resolved by an amended version of the Product Standards, requiring a fresh CEN Enquiry (and if necessary) a subsequent additional Formal Vote:
 - a. The text of Annex ZA, which is the part of the standard which is used for the purpose of CE marking of construction products and transforms all or part of a European product standard into a harmonized European product standard.
 - b. Modification of the text relating to “when required” clauses, as the phrase could be misinterpreted to refer to national regulations.
Corresponding modification of all tables in product standards to remove the No Requirement (NR) option. (Under CPR there is still a possibility to have the NPD⁴ category - No Performance Determined).
 - c. Lack of clarity as to whether matters indicated in the EC Mandate⁵ have been addressed in the product standards. Approaches will include clearer links in the answer to the Mandate between the mandated essential requirements and the specified requirements in the product standards, particularly in regard to Alkali-Silica Reactivity (ASR) (see guidance in BS 8500) and to dangerous substances.
 - d. Annex A (normative) on source materials - resolving EC concerns related to: ‘non transparency’ regarding positive/negative history of use and reference to additional specific requirements, unclear statements regarding which source materials are covered by the scope and inference of additional requirements being possible. Subsequent discussions with the EC have clarified that they will not accept ‘dynamic elements’ within the scope of a harmonised European Standard. Annex A is (a) intrinsically linked with the scope of the standard and (b) appears to be incomplete and thus ‘dynamic’, in that additional materials have already been identified by MS (including by the UK) as requiring inclusion. CEN TC154 therefore took the advice of the EC that it would be preferable to remove the Annex from the product standards and instead use the material to create an advisory Technical Specification (TS). This decision has been confirmed by a CEN TC154 Committee Internal Ballot. The new TS will be produced in parallel with the updated versions of the product standards

- e. Associated changes required to levels and classes - to receive approval to these changes in the product standards under a Delegated Act.
2. Matters requiring a Delegated Act of the European Parliament to resolve:
- a. Levels and classes are an essential part of a construction product standard, but raise concerns about restrictions to trade even though the changes may have been requested by a member state through a National Standards Body. After reviewing options with the EC, a Delegated Act of the European Parliament seems to be the most straightforward way of resolving this issue and appropriate documentation is being prepared by CEN Technical Committee TC154 - Aggregates.

Associated changes in the product standards are likely to include:

- i. Removal of duplicate descriptions of sets of class descriptions.
 - ii. The level of water absorption used as a screening test for freeze/thaw resistance should not be characterized as a level or class and the table indicating this should be removed.
- b. The inability to provide a response in the product standards to the Mandate on certain matters for which there is no known technical solution.

MPA and BSi Committee B502 will vigorously support the necessary activities to produce a version of the product standards (hENs) acceptable to the EC, although it is envisaged that the resolution of all these matters will not be concluded until sometime in 2019.

In the meantime, MPA and B502 will focus national efforts on the preparation of the required amendments to the BSi PD documents (Guidance for the use of these hENs) to reflect (in the form of Non-Contradictory Complementary Information - NCCI) the changes made in the new versions of the European Standards.

The intention is to have these revised PD documents available in time for publication soon after the publication of the hENs and their acceptance by the EC.

For further information please contact:

Mineral Products Association:

Mike Wharton, Technical Manager - Aggregates & Concrete.

T: 07702 537960 E: mike.wharton@mineralproducts.org

¹ A harmonized European Standard (hEN) is a European standard developed by a recognized European Standards Organization: CEN, CENELEC, or ETSI. It is created following a request from

the European Commission (EC) to one of these organizations. Manufacturers, other economic operators, or conformity assessment bodies can use harmonized standards to demonstrate that products, services, or processes comply with relevant EU legislation (in this instance the Construction Products Regulations).

² See https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products_en

³ The CEN consultant (or ‘New Approach Consultant’) is an independent expert whose role is to provide guidance and advice to the Technical Committees (TC), Subcommittees (SC) and Working Groups (WG) preparing draft European Standards intended to support New Approach Directives (i.e. ENs for citation in the Official Journal), at the earliest possible stage and throughout the development process. The New Approach Consultant also assesses the compliance of draft Harmonized Standards with the requirements of the piece of EU legislation they aim to cover and of the relevant standardization request.

⁴ Clause 5.6 of the CPA Guidance Note on the CPR states that: “Provided that the manufacturer has met the requirements of at least one characteristic in the declaration of performance they are not required to determine and/or declare values relating to characteristics for which regulations do not exist in the chosen market sector (i.e. Member state/intended use). In these cases, a declaration of ‘no performance determined’ (NPD) may be made, as provided for in the hEN.”

⁵ A mandate given to CEN by the European Commission and the European Free Trade Association, and supporting essential requirements of EU Directive(s)