GNB-CPR GNB-AG	Co-ordination of the Group of Notified Bodies for the Construction Products Regulation, (EU) No. 305/2011	NB-CPR/23/935r2 Issued: 07 September 2023 Revised: 25 March 2024 **Draft Guidance**

Draft Position Paper:

Assessment and Verification of Constancy of Performance in relation to kits

1 INTRODUCTION

The Construction Products Regulation allows for construction products being placed on the market in the form of kits consisting of components.

This position paper is intended to provide guidance to notified bodies regarding their assessments and verifications in relation to construction products supplied in the form of kits. The guidance concerns all systems of AVCP where notified bodies take part, i.e. systems 1+, 1, 2+, and 3.

2 BASIC CONSIDERATIONS

1) The CPR defines that a construction product can be supplied in the form of a "kit" consisting of *at least two separate components that need to be put together to be incorporated in the construction works.* Though the CPR does not specify at what stage the putting together would take place, for the purpose of this document, the *putting together* is assumed to be an assembling process carried out by actors other than the manufacturer and to take place *after* the product has been placed on the market.

2) For logistic reasons, manufacturers may decide to ship semifinished products, e.g. sections of large structural products, to a construction site, where the manufacturer or a supplier to the manufacturer would assemble and finalise the construction product. Such semifinished product to be assembled and finalised by or on behalf of the manufacturer should not be considered as kits. They may however still be construction products in the sense of the CPR.

3) Distinction must be kept between construction product kits, the components of which are placed on the market by a single manufacturer, and construction systems or virtual kits consisting of components supplied by various economic operators. Such systems or virtual kits would not be subject to provisions of the CPR. This does not mean that all components of the kit must be supplied together. The manufacturer may choose to send components separately, from different locations, e.g. directly from an external supplier, and using different distribution channels.

4) Some types of products would by nature have to be kits, e.g. because their physical dimensions would not allow them to be shipped in the assembled form. This may for instance be the case for road restraint barriers. Other construction products may be placed on the market either as

complete, assembled products or as kits of components to be put together[1]. If the applicable harmonised specification does not define the supply form, manufacturers and notified bodies would need to assess on a case-by-case basis whether or not a given kit would fall under a given harmonised standard, or if it would conform to a European Technical Assessment, which has been issued for it. Sector Groups may provide guidance for such case-by-case assessments.

5) For the purpose of Assessment and Verification of Constancy of Performance, it is necessary that the components when put together, will constitute a complete construction product falling under a harmonised standard or conforming to a European Technical Assessment, which has been issued for it.

6) As the roles of manufacturers and notified bodies only relate to manufacturing processes carried out prior to the placing on the market of the product, the putting together to be carried out by the user of the product would not be subject to assessments and verifications by notified bodies. However, if components are put together onsite by the manufacturer, the putting together may be subject to the assessment and verification by notified bodies, if it is found that the putting together would be a significant manufacturing process.

7) Generally, the performance declared for kits would refer to the assembled kit, the performance of which would depend on the correct assembling of the components. However, as the assessments and verifications by notified bodies do not comprise any assessment of the documents accompanying the construction product, this position paper should not provide any guidance in that regard.

8) For kits subject to AVCP system 3, the manufacturer shall carry out the sampling for the purpose of testing. Therefore, the procedures of notified laboratories need to take into account that samples delivered to the notified laboratory may have either the form of a kit of components to be put together by the laboratory or an assembled product.

9) For kits subject to AVCP systems 1+ and 1, sampling shall be carried out by or under the responsibility of the notified product certification body, both for the assessment of performance and for audit testing. That sampling should follow the already issued GNB guidance on sampling, with the necessary adaptations.

3 DEFINITION OF THE KIT

Kit	*(Definition in CPR Article 2(2) applies):* *'kit' means a construction product placed on the market by a single manufacturer as a set of at least two separate components that need to be put together to be incorporated in the construction works;*
Virtual kit	*A set of components not placed on the marked by the same manufacturer.*

From the above definition of the *kit*, three preconditions can be derived:

1. The kit must be supplied as at least two separate components; and

2. The Components must be put together in order to be incorporated in the construction works; and

[1] If components are being put together onsite by or on behalf of the manufacturer, the supply/placing on the market may be considered to take place *after* the components have been put together.

3. All components must be placed on the market by a single manufacturer[2].

Only if all the three preconditions are met, the kit would fall under the CPR definition of a kit.

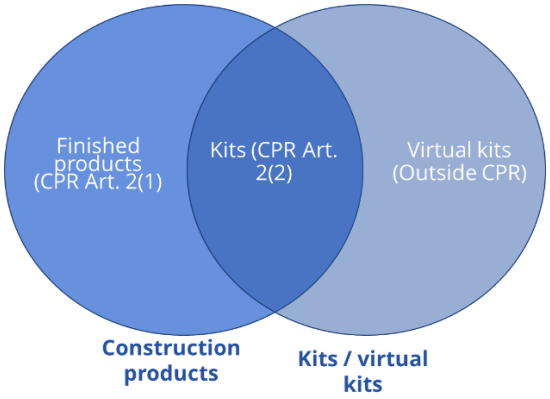
If one or more of the preconditions are not met, the kit would not be considered as a construction product and would not fall under the subject matter of the CPR.

Regarding the second precondition, it must be recognised that in some cases, it may be difficult to distinguish between the putting together and the incorporation. For instance, that may be the case if windows are supplied as separate frames and glazing, and the frames are installed in the buildings before the glazing is mounted in the frames.

However, it is not found that clearly separated processes for the putting together and the incorporation/installation would be necessary for a kit to fall under the CPR definition.

On the third precondition, it is recalled that behind any construction product there must be one – and only one – manufacturer, who must assume responsibility for the conformity of the product with the declared performance. If the components to be combined are supplied by different manufacturers, there would not be any single manufacturer with full responsibility for the performance of the product, i.e. the components put together.

Where one manufacturer supplies one or more components to be combined with one or more components from other suppliers are sometimes referred to as "virtual kits". Such virtual kits do not fall under the CPR.



However, if the kit as such is found not to fall under the definition found in CPR Article 2(2), it cannot be excluded that individual components of the kit may fall under the definition of a construction product found in Article 2(1) of the CPR.

Examples:

1. *A door set consisting of a door leaf, an unassembled door frame and all hardware, including hinges, lock and handle. But, the screws for assembling the door frame are not included. As these screws are necessary for the door to have the declared performance for several essential characteristics, e.g. thermal resistance and water tightness, the door would not be considered as a kit and accordingly not as a product covered by the CPR.*

[2] The manufacturer would not necessarily be the physical producer of the kit; e.g. an importer or distributor who places the product on the market under his own name or trademark is considered a manufacturer, cf. CPR Article 15.
The manufacturer may physically manufacture some of the components and have other components supplied by other suppliers. However, for the purpose of the CPR, there can only be one single manufacturer who shall assume responsibility for all components of the kit.

2. *An External Thermal Insulation Composite Systems "ETICS" supplied as rendering mortar, mesh, and dowels for fastening the system to the wall. The thermal insulation material is not supplied, but the instructions specify the type and required performance of the thermal insulation materials, so that the user can buy the thermal insulation materials elsewhere. As the performance of the ETICS depend on the performance of thermal insulation material, the ETICS would not be considered a kit and therefore not as a product covered by the CPR.*

4 COVERAGE OF THE HARMONISED TECHNICAL SPECIFICATION

As for all construction products, in relation to a kit a precondition for notified bodies to carry out AVCP activities is that the kit is covered by a harmonised technical specification, and that the notified body is notified for that harmonised technical specification.

4.1 Kits under harmonised standards

If the manufacturer informs that the kit falls under a harmonised standard, the methodology described by the position paper NB-CPR 19/793 shall be applied.

4.1.1 Criterion 1: Construction product

In relation to criterion No. 1 defined by NB-CPR 19/793, notified bodies shall be particularly aware that all components of the kit shall be supplied by the same manufacturer.

This does not mean that all components of the kit must be supplied together. The manufacturer may choose to send components separately, from different locations, e.g. directly from an external supplier, and using different distribution channels.

4.1.2 Criterion 2: The scope of the standard

In relation to criterion No. 2 defined by NB-CPR 19/793, notified bodies shall consider thoroughly if the scope of the standard does allow for products covered by it to be supplied in the form of kits. Scopes of some standards explicitly indicate kits or systems as part of the coverage. In that context, "systems" may be considered equivalent to kits.

However, the majority of harmonised standards indicate neither that systems/kits are covered nor that they are excluded. In such cases, the fulfilment of the other criteria will determine whether or not the kit should be considered as covered by the harmonised standard.

4.1.3 Criterion 3: Assessment methods defined by the harmonised standard

NB-CPR 19/793 applies without particular additions.

4.1.4 Criterion 4: Appropriateness of assessment methods

NB-CPR 19/793 applies without particular additions.

4.1.5 Criterion 5: Other reasons

In relation to criterion No. 5 defined by NB-CPR 19/793, notified bodies shall consider if the Factory Production Control defined by the harmonised standard would be suitable for the product if supplied as a kit.

For instance, if certain tests or inspections are defined for the assembled product, the manufacturer may not have the possibility to carry out these tests or inspections. In such cases, the notified body may consider the kit as not covered by the harmonised standard.

4.2 Kits for which ETAs have been issued

Also, if an ETA has been issued for the kit, the notified certification body needs to satisfy itself that all components of the kit are supplied by the manufacturer.

If an ETA has been issued for the kit, for the purpose of verification of constancy of performance. the notified body shall satisfy itself that:

1. The kit is covered by the ETA, i.e. it is in conformity with the product description of the ETA,

2. That the kit falls under the coverage of the EAD referenced by the ETA

This is further described in the position paper NB-CPR 23/937 regarding Verification of Constancy of Performance of construction products for which an ETA has been issued.

5 ASSESSMENT OF PERFORMANCE

For kits covered by harmonised standards and falling under systems 1+, 1, and 3, the notified body will be responsible for the assessment of performance.

Guidance on the assessment of performance is found in the position paper NB-CPR 17/722, section 7.

5.1 Sampling for testing (Systems 1+ and 1 only)

In systems 1+ and 1, the notified product certification body is responsible for the sampling, if testing is used as basis for the assessment of performance. The position paper NB-CPR 15/639 shall apply also when sampling for the testing of kits.

~~Generally, t~~The samples taken shall be representative of the product as placed on the market. Therefore, when the product is supplied in the form of a kit, normally the samples taken should also have the form of a kit.

When sampling kits, the notified certification body shall satisfy itself that:

- all components necessary for the finished assembled product are sampled, and

- the manufacturer's instructions for assembling the kit are made available to the notified body.

Products assembled by the manufacturer should only be sampled if it is justified that there would be no reason to consider that the assembling process would be critical in terms of achieving the declared performance.

In systems 1+, and 1, if the product is intended only for users with specified special skills and/or equipment that the notified certification body does not possess itself, the notified certification body may employ an individual with the specified special skills and and/or equipment or subcontract the assembly of the kit to an organisation possessing the specified skills and/or equipment.

5.2 Preparation of test specimen(s)

Guidance found in the position paper NB-CPR 17/722, section 7.3.1, applies with the below additions.

5.2.1 AVCP system 3

In AVCP system 3, the manufacturer is responsible for the sampling for testing. Accordingly, the manufacturer may choose to ship samples to the notified laboratory, either in the form of a kit or as an assembled product.

NOTE: For practical reasons, it may be agreed that the manufacturer can assemble the kit at the premises of the laboratory before handing the assemble product over to the laboratory.

If a kit is supplied to the laboratory, the laboratory shall request the manufacturer to submit instructions for assembling the kit. Then the laboratory shall assemble the components strictly following the instructions submitted by the manufacturer.

If the instructions provided by the manufacturer are not sufficiently clear and unambiguous, the notified laboratory shall await further instructions from the manufacturer.

The laboratory shall not carry out any further processing of the assembled product than specified by the instructions submitted by the manufacturer.

If the kit is incomplete, i.e. that not all the components necessary for assembling the kit into the finished product have been supplied, the notified laboratory shall inform the manufacturer and await that the manufacturer will supply all necessary parts.

For assembling the kit, the notified laboratory shall not use any components, e.g. screws, bolts, additives not supplied by the manufacturer. For the purpose of testing, the notified laboratory shall ensure that the specimens are correctly assembled following the instructions provided by the manufacturer. The manufacturer should have the possibility to monitor the assembling process to satisfy themselves that the assembling is done in accordance with the manufacturer's instructions.

NOTE: Distinction is kept between the assembly of the kit and the mounting of specimens in test rigs. For the mounting of specimens, e.g. mounting of a window in a guarded hotbox, it is not a requirement that fixings (screws etc.) shall be supplied by the manufacturer.

If the manufacturer indicates that specified skills and/or equipment would be required for the assembly of the kit, the notified laboratory shall carry out the assembly only if they do possess the required skills and/or equipment. Alternatively, the notified laboratory may employ an individual with the specified special skills and and/or equipment or subcontract the assembly of the kit to an organisation possessing the specified skills and/or equipment.

The test report shall describe the receipt of the kit and how it was assembled.

5.2.2 AVCP Systems 1+ and 1

As mentioned in section 5.1, normally samples taken by the notified product certification body would have the form of a kit, that needs to be assembled for the purpose of testing.

After the sampling, the manufacturer shall have no possibility to influence the sample.

For the purpose of testing, the notified certification product certification body shall ensure that the specimens are correctly assembled following the instructions provided by the manufacturer.

If the testing is subcontracted to an external laboratory, the notified product certification body may choose also to subcontract the assembling of the kit.

In any case, the manufacturer should have the possibility to monitor the assembling to satisfy themselves that the assembling is done in accordance with the written instructions.

6 INITIAL INSPECTION AND CONTINUING SURVEILLANCE

Guidance on the initial inspection and continuing surveillance is found in the position paper NB-CPR 17/72, sections 8 and 11.

That guidance applies with the below additions.

6.1 Effectiveness of factory production control

Both for the initial inspection and for the continuing surveillance, notified certification bodies shall assess if the factory production control is effective in terms of ensuring that the products supplied will have the declared performance.

When the product is a kit, the notified certification body needs to consider whether or not the process of assembling would be critical to the achievement of the declared performance.

If it is found that the processes of assembling may be critical, the notified certification body shall take into account the risk that the product may not achieve the declared performance if assembled by users.

Example:

Loadbearing steel frames shipped as two halves to be assembled onsite by the client. The declared structural performance of the steel frames will depend on the strength of the joint to be made onsite.

If the halves are to be assembled with bolts supplied by the manufacturer, the notified body may consider that the assembling process would not be critical. However, if the halves are to be assembled by means of welding by the client, the notified body may consider the assembling process critical.

6.1.1 Assembly process

~~Generally, the~~The inspection by the notified certification bodies shall cover all *significant manufacturing processes.*

The position paper NB-CPR 18/775 defines *Significant manufacturing process* as follows:

> *Process of which the controlling is likely to have a significant influence on the conformity of the construction product with the declared performance.*

As notified bodies cannot inspect processes taking place *after* the placing on the market of the product, it lies implicit that products can be supplied as kits only if the process of assembling the kit into the finished product would not have been a significant manufacturing process, if the assembling had been carried out by the manufacturer. When the product is supplied as a kit, assembling the components would be considered part of the construction works or construction service.

6.2 Conformity with FPC requirements of the harmonised technical specification

Part of the inspection methodology is to assess if the factory production control carried out by the manufacturer is in conformity with the FPC requirements of the applicable harmonised technical specification. This is described in the position paper NB-CPR 17/722, sections 8.4.3 and 11.2.

In relation to kits, notified bodies shall satisfy themselves that all elements of the FPC required by the harmonised technical specification in relation to the declared performance are carried out and that no elements of the FPC are left out because the product is supplied in the form of a kit instead of a finished product.

The notified shall identify the significant manufacturing processes to subject to inspection. When a component is not produced or only partially produced by the manufacturer, the notified body shall perform the inspection of any significant manufacturing process either:

- at the location where the process is carried out by the manufacturer's supplier,

or

- at the reception of the component by the manufacturer to verify that controls performed by the manufacturer effectively ensure the performance.

NOTE: If a component can be adequately assessed when received by the manufacturer, the processes carried out by the supplier of that component may not be considered *significant manufacturing processes.*

If it is found that the manufacturer does not carry out elements of the FPC that are required by the harmonised specification, the notified certification body would not be in a position to verify the constancy of performance and shall not issue a certificate.

Example:

Loadbearing steel frames shipped as two halves to be welded together onsite by the client. Conformity with the declared structural performance of the steel frames will depend on the strength of the welding to be made onsite.

As the onsite welding to be carried out by the client is not subject to FPC of the manufacturer, the notified body can neither verify that the FPC is in conformity with the harmonised standard, nor that the FPC is effective.

If components are physically produced by a supplier that is already subject to AVCP activities by another notified body, the notified body may, with the agreement of the manufacturer and the component supplier subcontract inspections to the other notified body, in line with the position paper NB-CPR 17/744. This may be the case if a component has been CE marked to a harmonised technical specification.

Example:

ETICS with mineral wool (MW) as the insulating core. Reaction to Fire is in AVCP system 1, according to Commission decision 556/1997, i.e. the notified product certification body shall assess the Reaction to Fire performance and satisfy itself that the FPC of the ETICS manufacturer effectively ensures that the ETICS has the declared performance. For that purpose, the notified product certification body may need to look into the FPC carried out by the supplier of the MW. This could be done either by inspecting the MW plant, or by subcontracting the inspections to the notified product certification body employed by the MW manufacturer.

7 AUDIT TESTING

If products under AVCP system 1+ are supplied as kits, the notified product certification body shall carry out audit testing. The guidance found in the position paper NB-CPR 17/722, section 12, applies together with the guidance in sections 5.1 and 5.2.2 of this position paper.