

Joint position on the use of verified software tools to assess product performance to implement the revised EU Construction Products Regulation (EU 2024/3110)

1 Introduction

The revision of the EU Construction Products Regulation (EU 2024/3110) pursues important and explicitly supported objectives of furthering harmonisation of the European internal market, increasing transparency along the value chain, and integrating sustainability, climate protection and resource efficiency consistently in the construction sector. In particular, the extension of the basic requirements for construction works includes environmental criteria such as embodied energy, recyclability and environmental performance under AVS 3+ is expressly welcomed.

The windows and doors sector, and the flat glass sector, are ready to actively contribute to the achievement of these objectives. At the same time, an analysis of the current implementation mechanisms – the Digital Product Passport (DPP), the extended Declaration of Performance (DoPC) and the systems for Assessment and Verification Systems (AVS) – show that in certain areas there remains a tension between regulatory ambition and the practical reality of sectors characterised by craft-based production, SMEs and project-specific (custom-made) manufacturing. For example, only AVS 3+ allows the use of software tools to assess performance for environmental characteristics and no other performance-related essential characteristics. Against this background, this paper contributes to the dialogue with regulators and aims to jointly develop practical, proportionate and digitally supported solutions.

2 Challenges for the Windows and Doors Sector and the Flat Glass Sector.

Glass, windows and doors products are characterised by custom-made production and a high degree of variability. Products are frequently planned and manufactured on a project-specific basis and differ in configuration, material combinations and functional features.

Against this background, the current interpretation of AVS and DoPC requirements gives rise to the following practical challenges:

- **High number of DoPCs due to high level of product individualisation:** The current system effectively leads to very granular, product-specific declarations, which are difficult to manage organisationally and economically for craft-based and SME-driven companies.
- **Limited human and financial resources:** A large proportion of companies employ fewer than 20 people. Extensive, recurring external testing and documentation requirements tie up resources that would otherwise support quality, innovation and sustainability in production.
- **Administrative complexity:** The large number of technical, environmental and substance-related characteristics to be declared represents a significant administrative burden, particularly for smaller enterprises.
- **Lack of representativeness of declared values:** The blanket application of worst-case approaches for the declaration of characteristics may lead to insufficiently differentiated results and only partially reflects improvements by changes in configurations, functional features, production processes and material choices.

- **Lack of resources of Notified Bodies:** Intensive involvement of Notified Bodies due to the very high numbers of individualised product types would lead to capacity bottlenecks and planning uncertainties.
- **Missed opportunity for increased digitalisation:** The Digital Product Passport offers significant potential for transparency and efficiency. Further to the DPP, it is essential that digital, software-based and automated processes are explicitly recognised and integrated in the CPR.

3 Proposal for Further Development

In light of the above considerations, the undersigned associations suggest complementing the existing CPR instruments with additional simplifications through digitalisation. The subsequent proposals would support the regulatory goals of the CPR through efficient procedures:

- **Validation of relevant software input parameters:** A Notified Body verifies the required input parameters (e.g. characteristic values of individual components) that are necessary for the assessment of essential characteristics.
- **Validation of the software:** A Notified Body reviews and validates software solutions, including rulesets, implementation of harmonised standards, databases and calculation methodologies.
- **Digital consistency:** Performance of essential characteristics is automatically derived and documented by the verified software on the basis of verified digital processes of the manufacturer and secured by factory production control of the manufacturer.

3.1 Enable the validation of verified software through amending Assessment and Verification System 3

The preferred option is to amend Annex IX(5) of the CPR on the Assessment and Verification System 3 (AVS 3) through a delegated act under Article 10(4) of the CPR. Annex IX(5) could be modified (indicated in **bold blue**) as follows:

(a) *The manufacturer shall carry out:*

- further assessment of the performance of the product on the basis of testing (including sampling of the items to be taken as representative of the type), type calculation, tabulated values or documentation describing that product **or on the basis of a validated software, when allowed in the standardisation request**;*
- factory production control;*
- the drawing up of technical documentation containing proof of the correct application of this Regulation with regard to the assessment of performance;*
- the drawing up of technical documentation containing proof of conformity with the applicable product requirements under this Regulation.*

(b) *The notified body shall decide on the issuing, restriction, suspension or withdrawal of the certificate of performance and of conformity of the product on the basis of:*

- an assessment of the performance **or validation of the input values of the software used to calculate the performance** on the basis of testing performed by a notified testing laboratory (based on sampling carried out by the manufacturer), calculation, tabulated values or documentation describing the product;*

- (ii) validation of a software used for the assessment based on standardised validation methods when relevant and allowed in the standardisation request;*
- (iii) confirmation that the product type and the product category were correctly determined.*

Such changes would provide a legally clear pathway for using validated software without requiring an additional assessment and validation system.

3.2 Relying on standards alone is not a reliable option.

Today, several building glass standards include procedures for validating software that do not assign tasks to specific parties but describe what the validation procedure should include. It outlines the need to compare results from the applicant's software with those from the validator and to use defined tolerances and reference data. It also specifies when a new validation is required. These validation procedures have been used informally since 2005, and some standards cited in the Official Journal of the EU (e.g. EN1279-5:2018 and EN 1096-4:2018), and Notified Bodies are using and approving this approach.

While these validation procedures under AVS 3 have permitted a workable and effective approach until today, it cannot be a long-term solution under the CPR 2024. Indeed, the adequacy of this validation procedure would still not be enshrined in the CPR, and this will always leave manufacturers under legal uncertainty with regard to assessment and validation of calculation software.

Considering the commitment of the CPR 2024 to enable simplification through digitalisation, an amendment of AVS 3 which enables the use of automated, efficient, and verifiable software is most appropriate.

4 Concluding Remarks

The undersigned associations explicitly share the objectives of the revised Construction Products Regulation and see themselves as active partners in its implementation. From our perspective, it is crucial that regulatory instruments adequately reflect the diversity of products and production realities in the flat glass sector and windows and doors sector.

With proportionate, digitally supported and validated approaches, it is possible to safeguard both the ambitious objectives of the Regulation and the long-term competitiveness, innovative capacity and sustainable value creation of craft-based businesses and SMEs across Europe.

Furthermore, it is in line with digitalisation efforts in the construction sector where digital tools and software-based processes are actively promoted at EU level as a means to improve efficiency and reduce administrative burden.

We stand at the disposal of authorities to engage in a constructive dialogue on advancing software validation and reach a workable solution for all stakeholders.

About

European Aluminium, founded in 1981 and based in Brussels, is a member-based industry association representing Europe's most complete and thriving metals value chain. Their 100+ members include companies engaged in bauxite mining; alumina refineries; primary aluminium producers; downstream manufacturers of extruded, rolled and cast aluminium; producers of recycled aluminium and national aluminium associations, representing more than 600 plants in 30 European countries. European Aluminium actively engages with policy makers and the wider stakeholder community to promote the outstanding properties of aluminium, secure growth, and optimise the metal's contribution to meeting the EU's sustainability and industrial leadership ambitions.

EuroWindow AISBL was founded as an international non-profit Association, in order to represent the interests of the European window, door and facade (curtain walling) sector. Our 21 national associations speak for European window, door and facade manufacturers that are in direct contact with consumers, and thereby having large insights on consumers' demands and expectations. We are at the forefront interacting with dealers, installers and consumers buying windows and doors, and the companies behind the associations cover selling all over Europe.

EPPA, the European PVC Profiles and related Building Products Association represents the manufacturers of PVC window systems and related building products in Europe. About 25,000 employees process about 1,4 million tonnes of PVC creating a turnover of €4 billion with profile systems and building products. Based in Brussels, EPPA provides a common platform for bundling national activities in the fields of PVC window technology, recycling, environment and public affairs.

Glass for Europe is the trade association for Europe's flat glass sector. Flat glass is the material that goes into a variety of end products, primarily in windows and facades for buildings, windscreens and windows for automotive and transport, as well as solar energy equipment, furniture and appliances.

Glass for Europe brings together multinational firms and thousands of SMEs across Europe to represent the whole building glass value chain. It is composed of flat glass manufacturers, AGC Glass Europe, Guardian, NSG-Group, Saint-Gobain, and Şişecam, and works in association with national partners gathering thousands of building glass processors and transformers all over Europe.

Small Business Standards (SBS) is the European association that represents small and medium-sized enterprises' (SMEs) interests in the standardisation process at both European and international level.

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