

MS/ body	Clause/ Subclause (e.g. Annex II)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Row number (e.g. 18)	Comments	Proposed change	Observations of the Commission
EW	Annex II	Table 1	5	It is not clear what is meant by “external fire performance” for “facades”. For curtain waling we have in hEN 13830 the characteristics “fire propagation (to upper levels)” to comply with legal requirements with the test method in EN 1364-4. Is this the characteristic for curtain waling covered in this row or if not, where is it introduced and is curtain waling excluded from “external fire performance”?	Please clarify what kind of “façade” is meant (e.g. cladding and ETICS) and what curtain waling must take into account.	
EW	Annex III	Table 1	10 + 11 + 12	As roof windows are handled under the same product family as windows (product family 2), roof windows should be mentioned here and not under product family 22.	Please add under additional remarks “including roof windows”.	
EW	Annex III	Table 1	11	“Anti-bullet and anti-explosion performance” cover new characteristics which were before voluntary characteristics for windows and pedestrian doors comparable to AVS 4. The previous level of assessment and verification was accepted by MS and stakeholders. So, why introducing such a high level of AVS 1 which causes much more costs, especially for MS which need such characteristics for their buildings? Furthermore, essential characteristics such as bullet resistance and explosion resistance are typically tested by specialised official bodies (often linked to police or military), which are unlikely to undergo the normal notification process. Tests are often tailored to specific customer requirements and cannot always be standardised.	We recommend AVS 4 to be linked to “anti-bullet and anti-explosion performance”, because of the specific situation of special test facilities for anti-violation characteristics and tailored test conditions to avoid potential additional high costs.	
EW	Annex III	Table 1	12	All characteristics of windows and pedestrian doors except those for fire/smoke, anti-bullet or anti-explosion performance are set in this row to AVS 3. This conflicts with row 13 and 14, where also such characteristics seem to be addressed with different AVS levels.	Please exclude in column “essential characteristics and product requirements” additionally <u>“and bonded glazing related to the risk of sealant failure”</u>	

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EW	Annex III	Table 1	12	<p>Row 12 should be split into several rows where the intended use is stated to be “all” for all of them but where the AVS levels are linked to specific essential characteristics.</p> <p>Some characteristics should be assigned to AVS 4 for several reasons:</p> <ul style="list-style-type: none"> - <u>Characteristics determined only at the delivery of the product</u> <p>Certain characteristics (e.g. manual operating forces) are specific to each product and are not determined through type testing.</p> <ul style="list-style-type: none"> - <u>Avoiding bottlenecks for new characteristics</u> <p>Some characteristics (e.g. climate-related deformation) have so far been voluntary (equal to AVS 4) and create a sudden surge in testing demand that notified bodies could not meet.</p> <ul style="list-style-type: none"> - <u>Use of simplified assessment methods</u> <p>The product standards for window and pedestrian doors (EN 14351) defines today very simple assessment of some characteristics by tabulated values a simple calculation.</p> <ul style="list-style-type: none"> - <u>Forwarding of component characteristics</u> <p>Sometimes with the DoPC for windows and pedestrian doors performance of the component (e.g. g-value and light transmittance of glass) has to be forwarded. In these cases, AVS 4 should be sufficient.</p>	<p>AVS 4 should be linked to following essential characteristics if not part of the general product information:</p> <ul style="list-style-type: none"> - clear opening height and width - manual operating forces - ventilation area at open position - climate related deformation - snow and permanent load (for roof windows only) - use of tabulated values and calculation for thermal transmittance, sound insulation and airtightness - g-value and light transmittance of glass - U values of components - bullet and explosion resistance (see comment to row 11) - ...? <p>AVS 3 should be linked to all the remaining characteristics.</p>	
EW	Annex III	Table 1	13	<p>To solve the conflict of double assignment of characteristics with row 12 please add “bonded glazing” in the characteristic what we expect the row is meant for.</p>	<p>Please amend in column “essential characteristics and product requirements” additionally “bonded glazing” to:</p> <p><u>“bonded glazing</u> related to the risk of sealant failure”</p>	
EW	Annex III	Table 1	14	<p>The row is intended to cover “<u>bonded glazing</u> non-related to the risk of sealant failure” in windows and pedestrian doors. The AVS Level should be aligned with the AVS Level in row 53 (“bonded glazing non-related to the risk of sealant failure” of curtain walling) which is under AVS 3.</p>	<p>For clarification please change the characteristics to “<u>bonded glazing</u> non-related to the risk of sealant failure” and set to AVS 3 for product category windows and pedestrian doors.</p>	
EW	Annex III	Table 1	47 + 48	<p>The upcoming SR for curtain walling will include the 2 additional product types “glass roof” and “frameless glass facade” which are here missing.</p>	<p>Please change “product category” to “curtain walling kits, glass roofs and frameless glass facade”.</p>	

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EW	Annex III	Table 1	47	This row is only relevant for bonded glazing in curtain walling. To solve possible conflict of double assignment of characteristics please add "bonded glazing" in the characteristic.	Please amend in column "essential characteristics and product requirements" additionally "bonded glazing" to: "bonded glazing related to the risk of sealant failure" and delete "including structural bonded glazing" in column "additional remarks".	
EW	Annex III	Table 1	48	The characteristic "bonded glazing non-related to the risk of sealant failure" should be dealt with separately as for windows in row 14 and not mixed up with all the other characteristics. The row should be split up.	Please change to a separate row for "bonded glazing non-related to the risk of sealant failure" with AVS 3.	
EW	Annex III	Table 1	48	<p>The AVS alignment for other than bonded glazing characteristics is not the same as in M/108 where AVS 3 is limited to following characteristics:</p> <ul style="list-style-type: none"> - fire resistance - fire propagation (to upper levels) (when relevant) - resistance to its own dead load - windload resistance - impact resistance/safe breakage - resistance to live horizontal loads at sill level - thermal shock resistance <p>All the other characteristics should still be linked to AVS 4 to avoid bottlenecks for limited test capacity of notified bodies.</p>	<p>AVS 3 should be linked to following essential characteristics:</p> <ul style="list-style-type: none"> - fire resistance - fire propagation (to upper levels) - resistance to own dead load - wind load resistance - impact resistance - horizontal live load resistance - resistance to snow load - ...? <p>AVS 4 should be linked to all the remaining characteristics.</p>	
EW	Annex III	Table 1	57	It is expected that characteristics of a window, roof window and/or rooflight used to provide <u>natural smoke and heat exhaust ventilation (NSHEV)</u> will be covered by product category 57. It is however not very clearly written. It also must be very clear that only those characteristics directly linked to the natural smoke and heat exhaust ventilation function is handled under AVS 1. All other essential characteristics of the window, roof window and/or rooflight will be covered by their respective product categories (10 and 11 for windows and roof windows, and 154 + 155 for rooflights)	<p>Include a comment stating that essential characteristics directly linked to the natural smoke and heat exhaust ventilation performance are included by product category 57 but that the basic functioning is covered by row 10 + 11 + 12 (windows and roof windows) and 154 + 155 (rooflights) respectively.</p> <p>Alternatively natural smoke and heat exhaust ventilation characteristics can be included in the SR of the products windows, roof windows and rooflights.</p>	

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EW	Annex III	Table 1	150+151	Roof windows shall be handled together with product category for windows and thereby included in. Row 150+151 should as a consequence of this change be deleted.	Delete row 150+151 and include roof windows in rows 10 + 11 + 12 + 13 + 14. If not, the rows need to be aligned with the content and build up for windows in rows 10 + 11 + 12 + 13 + 14, including to change Intended use from “roofings” to “all”.	
EW	Annex III	Table 1	155	For rooflights and roof hatches it would not be proportional to require involvement of a NB for certain characteristics and those should therefore be AVS 4. The same principles as suggested for windows in row 12 (including roof windows) should apply here.	Change Intended use from “roofings” to “all” AVS 4 should be linked to following essential characteristics if not part of the general product information: <ul style="list-style-type: none"> - clear opening length and width - manual operating forces - ventilation area at open position - g-value and light transmittance of glass - U values of components - Durability - ...? AVS 3 should be linked to all the remaining characteristics.	

EW = EuroWindow