

EUROPEAN ASSESSMENT DOCUMENT

EAD 210005-00-0505

March 2019

INTERNAL PARTITION KITS FOR USE AS NON-LOADBEARING WALLS

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This European Assessment Document (EAD) has been developed taking into account up-to-date technical and scientific knowledge at the time of issue and is published in accordance with the relevant provisions of Regulation (EU) No 305/2011 as a basis for the preparation and issuing of European Technical Assessments (ETA).

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1 Scope of the EAD

1.1 Description of the construction product

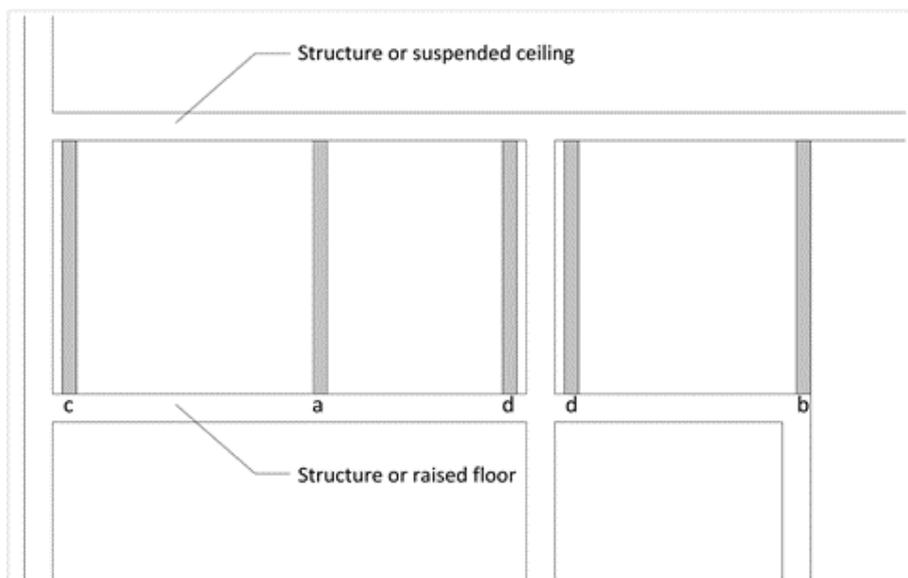
This EAD covers an assessment of Internal Partition Kits (IPK) for use as non-loadbearing walls:

- made of board or sheet materials supported by studs or other ancillary members; made of composite panels with or without supporting framework; made of fully or partially glazed constructions; made of homogeneous units; including fixings and accessories
- composed of components factory-produced as part of the kit either by the ETA-holder himself or by other manufacturers delivering to the specification of the ETA-holder, who is responsible for the kit.

The function of a partition is, with or without fire separating capabilities and/or acoustic insulation and/or thermal insulation, to divide the interior of a building (a). This includes the special cases where a partition separates areas with different floor levels (b) or is used as an independent lining for an external wall (c) or as an independent lining for internal walls (d).

(Letters a, b, c and d refer to Figure 1 below).

Figure 1 - Vertical section



The minimum kit shall include the components for the self-supporting function (e.g. the partition frame) and for the separating function(s) (e.g. the partition panels)

A partition may or may not include:

- a factory-made finish
- openings that allow the fitting of doors and other moving components. If the components to be installed in the openings form part of the system, this shall be apparent from the ETA. Unless otherwise stated in the ETA for the partition, the components to be installed in the openings shall be assessed together with the kit on the basis of the requirements relevant for the components in question and their intended use.
- installations for gas, electricity, water or drainage. The assessment, however, will comprise only the partition according to this document with the services installed, but not the performance of the services themselves.

The EAD covers both immovable and relocatable Internal Partition Kits.

The following products are not included in this EAD:

- sliding and folding partitions, such as partitions of hinged leaves which can be moved horizontally or vertically either manually or by electrically or hydraulically powered installations
- partitions that are part of an integrated partition-suspended ceiling and/or partition-raised floor system, since an assessment of the interaction between the ceiling/raised floor and the partition is not covered by this EAD
- screens, e.g. part height office type screens and cubicles, e.g. for toilets

The products are not covered by a harmonized standard (hEN).

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

Relevant manufacturer's stipulations having influence on the performance of the product covered by this European Assessment Document shall be considered for the determination of the performance and detailed in the ETA.

1.2 Information on the intended use(s) of the construction product

1.2.1 Intended use(s)

The intended use for a partition as specified in an ETA may vary within a range of many possibilities, from a simple partition to a partition with any combination of performance, for example a fire-compartment partition, separating areas between which there are differences with respect to the transmission of sound and/or and hygrothermal properties.

This EAD apply to partitions used in the following ways:

- Fastened to structures capable of giving adequate support and adequate possibilities for fixing
- Environmental conditions: A mean air temperature in the range from 5 °C to 35 °C with a minimum of 0 °C and a maximum of 50 °C
- Environmental conditions: A mean daily air relative humidity in the range from 20 %RH to 75 %RH. Maximum air relative humidity only exceeding 85 %RH for short periods of time
- Zones accessible to users with a certain level of incentive to exercise care. These zones are divided into four use categories as shown in Tables B1 to B4 of the EAD.
- In EN 1991-1-1 – Eurocode 1 areas in residential, social, commercial and administration buildings are divided into four categories according to their specific uses as shown in Table 1.
- The relationship between the categories employed in this EAD and the categories employed in Eurocode 1 is given in Table 2.
- Zones where surface requirements with respect to hygiene, air quality, static electricity, etc are of the same nature and magnitude as those in dwellings, offices, schools, institutions, etc.

The following use conditions are outside the scope of this EAD:

- exceptionally severe use (such as acts of vandalism)
- zones where very special or very high requirements for surfaces are found (such as in hospitals, medical and food industry, computer and telecommunications rooms).

Table 1: Definition of area categories in Eurocode 1 *)

Category	Specific Use	Example
A	Areas for domestic and residential activities.	Rooms in residential buildings and houses; bedrooms and wards in hospitals; bedrooms in hotels and hostels kitchens and toilets.
B	Office areas.	
C	Areas where people may congregate (with the exception of areas defined under category A, B and D).	<p>C1: Areas with tables, etc., e.g. areas in schools, cafés, restaurants, dining halls, reading rooms, receptions.</p> <p>C2: Areas with fixed seats, e.g. areas in churches, theatres or cinemas, conference rooms, lecture halls, assembly halls, waiting rooms, railway waiting rooms.</p> <p>C3: Areas without obstacles for moving people, e.g. areas in museums, exhibition rooms and access areas in public and administration buildings, hotels, and railway station forecourts.</p> <p>C4: Areas with possible physical activities, e.g. dance halls, gymnastic rooms, stages.</p> <p>C5: Areas susceptible to large crowds, e.g. in buildings for public events like concert halls, sports halls including stands, terraces and access areas and railway platforms.</p>
D	Shopping areas.	<p>D1: Areas in general retail shops</p> <p>D2: Areas in department stores</p>

*) The table is a copy of Table 6.1: Categories of building areas, in EN 1991-1-1 (Eurocode 1).

Table 2: Relationship between use categories and area categories

Category as specified in annex B of the EAD	Description	Area category as specified in Eurocode 1 EN 1991-1-1
I	Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse.	A, B
II	Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse.	
III	Zones accessible primarily to those with little incentive to exercise care. Risk of accidents occurring and of misuse.	C1 – C4, D1 – D2
IV	<p>Zones and risk as II and III</p> <p>In case of failure risk includes the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1</p>	<p>C5</p> <p>+</p> <p>A, B, C1 – C4, D1 – D2 where the partition has the function of a barrier.</p>

1.2.2 Working life/Durability

The assessment methods included or referred to in this EAD have been written based on the manufacturer's request to take into account a working life of the partition kit for the intended use of 25 years when installed in the works. These provisions are based upon the current state of the art and the available knowledge and experience.

When assessing the product the intended use as foreseen by the manufacturer shall be taken into account. The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works¹.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by EOTA when drafting this EAD nor by the Technical Assessment Body issuing an ETA based on this EAD, but are regarded only as a means for expressing the expected economically reasonable working life of the product.

1.3 Terminology

Kit	See Article 2.2 of the CPR. The product covered by this EAD, is a kit consisting of at least two components, see also section 1.1
Non-loadbearing wall	Wall which does not transfer vertical forces from the works and whose contribution to the stability of the works is not taken into account.
Joint	Connection between two partition components Connection between a partition component and a component of an adjacent system or structure
Frame	Set of profiles, usually made of metal or wood where panels or boards are fixed
Immovable partition	Partition, which is not intended to be de-installed during the expected working life
Relocatable partition	Partition, which – without significant influence on the surrounding structure or the partition itself – can be de-installed and re-installed
Independent lining	Partitions consisting of a board product fixed to a frame, which is then fixed to the ceiling and floor
Glazed partitions	Partitions with panels made from glass, which can be translucent or opaque
Solid partitions	Partitions with panels made from materials such as gypsum board, fibre cement boards, calcium silicate boards, wood based materials, laminates etc.
Damage	Breakage, components collapsing, major indents causing cracks on the surface of the board material/glass panel or functional failure of the board material/glass panel. In connection with hard body impact tests, a possible abrasion, e.g. in the form of an indent coming from the steel ball is not considered as damage
Sill height	Vertical distance from a guardrail or ledge to the floor
Module (See Annex D)	A sample of the kit fully reflecting the main components (e.g. board, frame, insulation and fasteners) in the kit cut to fit the size of the test rig

¹ The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works is subject, as well as on the particular conditions of the design, execution, use and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than the assumed working life.

2 Essential characteristics and relevant assessment methods and criteria

2.1 Essential characteristics of the product

Table 3 shows how the performance of the Internal Partition Kits are assessed in relation to the essential characteristics.

Note. All undated references to standards or to EAD's in this chapter are to be understood as references to the dated versions listed in clause 4

Table 3 Essential characteristics of the product and methods and criteria for assessing the performance of the product in relation to those essential characteristics

No	Essential characteristic	Assessment method	Type of expression of product performance <i>(level, class, description)</i>
Basic Works Requirement 2: Safety in case of fire			
1	Reaction to fire	2.2.1	Class
2	Resistance to fire	2.2.2	Class
Basic Works Requirement 3: Hygiene, health and the environment			
3	Content, emission and/or release of dangerous substances	2.2.3	Level
4	Water vapour permeability	2.2.4	Level
Basic Works Requirement 4: Safety and accessibility in use			
5	Sill height	2.2.5	Level
6	Resistance to damage and functional failure from horizontal loads	2.2.6	Level
7	Resistance to damage and functional failure from eccentric vertical loads	2.2.7	Level
8	Resistance to horizontal linear static loads	2.2.8	Level
9	Resistance to functional failure from point loads parallel or perpendicular to the surface	2.2.9	Description
10	Rigidity of partitions to be used as a substrate for ceramic tiling	2.2.10	Description
11	Safety against personal injuries by contact	2.2.11	Description

No	Essential characteristic	Assessment method	Type of expression of product performance <i>(level, class, description)</i>
12	Resistance to deterioration caused by: – physical agents – chemical agents – biological agents	2.2.12	Level, description
Basic Works Requirement 5: Protection against noise			
13	Airborne sound insulation	2.2.13	Level
14	Sound absorption	2.2.14	Level
Basic Works Requirement 6: Energy economy and heat retention			
15	Thermal resistance	2.2.15	Level
16	Thermal inertia	2.2.16	Level

2.2 Methods and criteria for assessing the performance of the product in relation to essential characteristics of the product

Unless otherwise specified in the test methods referred in the following, the testing shall be carried out on sample partitions representative of those to be supplied and/or erected in practice fitted into an appropriate test rig. Whenever possible the installation of the test sample shall be carried out by the manufacturer.

Testing will be limited only to the essential characteristics which the manufacturer intends to declare. If for any components covered by harmonised standards or European Technical Assessments the manufacturer of the component has included the performance regarding the relevant characteristic in the Declaration of Performance, retesting of that component for issuing the ETA under the current EAD is not required.

2.2.1 Reaction to fire

The Internal Partition Kit shall be tested, using the test method(s) relevant for the corresponding reaction to fire class, in order to be classified according to Delegated Regulation (EU) 2016/364 and EN 13501-1.

The classification shall be stated in the ETA.

Concerning mounting and fixing rules and extended application rules for reaction to fire, see Annex D.

When required by the manufacturer, the reaction to fire class according to Delegated Regulation (EU) 2016/364 and EN 13501-1 of components included in the kit shall be stated in the ETA.

2.2.2 Resistance to fire

The internal partition kit shall be tested, using the test method relevant for the corresponding fire resistance class, in order to be classified according to EN 13501-2.

If relevant, classification based on extended application rules for partitions shall be performed in accordance with Annex F.

The classification and field of application are given in the ETA.

2.2.3 Content, emission and/or release of dangerous substances

The performance of partition kits related to the emission and/or release and, where appropriate, the content of dangerous substances will be assessed on the basis of the information provided by the manufacturer² after identifying the release scenarios (in accordance with EOTA TR 034) taking into account the intended use of the product and the Member States where the manufacturer intends his product to be made available on the market. Purely inorganic boards, slabs or mats alone and purely inorganic kits with fasteners and frames made of uncoated steel does not have to be tested.

The intended release scenarios for this product and intended use with respect to dangerous substances for this product are:

IA1: Product with direct contact to indoor air.

IA2: Product with indirect contact to indoor air (e.g. covered products) but possible impact on indoor air.

2.2.3.1 SVOC and VOC

For the intended use covered by the release scenario IA1 and IA2 semi-volatile organic compounds (SVOC) and volatile organic compounds (VOC) are to be determined in accordance with EN 16516. The loading factor to be used for emission testing is determined in accordance with EN 16516.

Loading factors L in accordance with EN 16516, depending on the product type:

Loading factor [m ² /m ³]	Intended use
1,0	walls
0,05	small surfaces, e.g. door, window, heating system
0,007	very small surfaces, e.g. sealants

The preparation of the test specimen is performed by using all possible components of the kit (for the definition of the kit see clause 1.3) installed in accordance with the manufacturer's product installation instructions or (in absence of such instructions) the usual practice of installation.

Once the test specimen has been produced, as described above, it should immediately be placed in the emission test chamber or cell. This time is considered the starting time of the emission test.

The test results have to be reported for the relevant parameters (e.g. chamber size, temperature and relative humidity, air exchange rate, loading factor, size of test specimen, conditioning, production date, arrival date, test period, test result) after 3 and 28 days testing.

The relevant test results shall be expressed in [mg/m³] and stated in the ETA.

² The manufacturer may be asked to provide to the TAB the REACH related information which he must accompany the DoP with (cf. Article 6(5) of Regulation (EU) No 305/2011).

The manufacturer is not obliged:

- to provide the chemical constitution and composition of the product (or of constituents of the product) to the TAB, or
- to provide a written declaration to the TAB stating whether the product (or constituents of the product) contain(s) substances which are classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No 1272/2008 and listed in the "Indicative list on dangerous substances" of the SGDS.

Any information provided by the manufacturer regarding the chemical composition of the products may not be distributed to EOTA or to TABs.

2.2.4 Water vapour permeability

The water vapour permeability of the kit is derived from the tabulated values for the specified component in EN ISO 10456, , or by testing of the component in accordance with EN ISO 12572. In case the component is covered by a hEN or and ETA and bought from the market separately the value is taken from the Declaration of Performance of the component manufacturer.

The water vapour permeability and the test/calculation conditions under which the value was determined for the relevant components shall be given in the ETA.

2.2.5 Sill height

For type b partitions (see figure 1 in section 1.1) the sill height shall be assessed in accordance with table B.4 and the sill height shall be stated in the ETA.

2.2.6 Resistance to damage and functional failure from horizontal loads

The performance given as categories in Tables B1 to B4 in Annex B have been adopted to correspond to various degrees of exposure in use with reference to table 1 and 2 in section 1.2.1 in relation to the resistance to damage and to functional failure of the partition kit

2.2.6.1 Resistance to damage and functional failure from soft body impact load – 50 kg bag

Testing of partitions for resistance to impact from a large soft body is performed as described in Annex E, with amendments and modifications as described in Annex A and B of this EAD.

The abovementioned test applies to the assembled kit.

The performance of the partition in relation to resistance to damage is given as a use category in the ETA based on the tests in Annex B. The level corresponding to the use category at which the tested partition shows no penetration of all the skins of the surface of the kit, and no falling debris on the reverse side of impact, and no collapse and no other dangerous failure shall be given in the ETA.

The performance of the partition in relation to resistance to functional failure is given as a use category in the ETA based on the tests in Annex B. The tested partition shall:

- show no damage of the surface of the kit (impact marks are allowed)
- show no functional failure, meaning that a possible damage does not adversely affect the declared performance of the kit and that the possible damage is repairable and,
- the maximum residual deflection after 3 impacts shall be less than or equal to 5 mm
- the increase of deflection during testing shall stabilize
- opening of door still possible

The use category shall be given in the ETA.

2.2.6.2 Resistance to damage and functional failure from hard body impact load – 0,5 kg and 1 kg steel ball

Testing of partitions for resistance to impacts from a small hard body is performed as described in Annex E, with amendments and modifications as described in Annex A and B of this EAD.

The abovementioned test applies to the exposed surface of the kit, tested in the kit configuration.

For kits with several types of build-ups but with the same surface it is not necessary to perform the hard body impact test more than once.

The performance of the partition in relation to resistance to damage is given as a use category in the ETA based on the tests in Annex B. The level corresponding to the use category at which the tested partition shows no complete penetration of all the skins of the surface of the kit, and no falling debris on the reverse side of impact, and no collapse and no other dangerous failure shall be given in the ETA.

The performance of the partition in relation to resistance to functional failure is given as a use category in the ETA based on the tests in Annex B. The level at which the tested partition shows no damage of the surface (impact marks are allowed) of the kit after impact in 10 different positions shall be given in the ETA.

2.2.7 Resistance to damage and functional failure from eccentric vertical loads

Table 4 gives two levels of loading in relation to the resistance against eccentric loads causing damage.

Table 4: Definition of loading levels –damage – Eccentric vertical loads

Loading	Description	Test conditions
A	Heavy objects such as wash basins, small bookshelves	1000 N during 24 hours at 0,3 m from surface of wall on brackets 0,5 m apart, each fixed at two points 0,15 m apart on a vertical line
B	Very heavy objects such as boilers, large bookshelves	4000 N during 24 hours at 0,3 m from surface of wall on brackets 1,0 m apart, each fixed at two points 0,6 m apart on a vertical line

Table 5 gives two levels of loading in relation to the resistance against eccentric loads causing functional failure.

Table 5: Definition of loading levels – Functional failure – Eccentric vertical loads

Loading	Description	Functional failure test criteria
A	Heavy objects such as wash basins, small bookshelves	500 N short-term load at 0,3 m from surface of wall on brackets 0,5 m apart, each fixed at two points 0,15 m apart on a vertical line
B	Very heavy objects such as boilers, large bookshelves	2000 N short-term load at 0,3 m from surface of wall on brackets 1,0 m apart, each fixed at two points 0,6 m apart on a vertical line

Testing of partitions for support of heavy eccentric vertical downward load is performed as described in ISO/DIS 8413:1990, with amendments and modifications as described in Annex B.4 of this EAD.

The loading categories according to Table 4 and Table 5 shall be given in the ETA.

The abovementioned test applies to the assembled kit.

The performance of the partition in relation to resistance to damage is given in the ETA based on the tests in Table 4 and Annex B.4. The level corresponding to the use category at which the tested partition shows that the increase of deflection during testing is stabilized in a manner indicating that failure is unlikely to occur after some additional time, and shows no collapse and no other dangerous failure, shall be given in the ETA.

The performance of the partition in relation to resistance to functional failure is given in the ETA based on the tests in Table 5 and Annex B.4. The level at which the tested partition has a maximum deflection of 1/500 of the height or 5 mm and shows no functional failure (meaning that a possible damage does not adversely affect the declared performance of the kit and that the possible damage is repairable) is given in the ETA.

2.2.8 Resistance to horizontal linear static loads

The resistance to horizontal linear static loads can be assessed by testing or by calculation:

Testing:

Testing of partitions for resistance to horizontal linear static loads is performed as described in Annex B.5 of this EAD.

Calculation:

Alternatively, and where appropriate, the resistance to horizontal linear static load can be determined by calculation; the load value shall be taken from table 6.12 in clause 6.4 of EN 1991-1-1 depending on the area category (as defined in Eurocode 1). The performance of the partition is stated as a level in the ETA [kN/m].

The load at failure or at a maximum of 40 mm deflection and the corresponding characteristic resistance [kN/m] to a horizontal uniformly distributed load including the corresponding load factor shall be given in the ETA.

2.2.9 Resistance to functional failure from point loads parallel or perpendicular to the surface

Testing of partitions for resistance to point loads parallel or perpendicular to (away from) the surface of the partition is performed as described in ISO/DIS 8413:1990.

A load of 100 N is applied perpendicular to the surface and a load of 250 N is applied parallel to the surface. It shall be stated in the ETA that the partition shows no damage, no pull out and no functional failure after the test. If the partitions is damaged from the test, this shall be stated in the ETA.

2.2.10 Rigidity of partitions to be used as a substrate for ceramic tiling

Testing of sufficient strength and rigidity of partitions to be used as a substrate for ceramic tiling is performed as described in Annex C of this EAD. The test is carried out instead of the test of resistance to functional failure from soft body impact load described in clause 2.2.5.1 of this EAD, and not as a supplement to it.

The sample is subjected to a dynamic load of 3 x 120 J. The sample shall have a maximum deflection during impact of 30 mm, a maximum residual deflection of 2 mm and show no damage. Subsequently the sample is subjected to 1 x 240 J. After all 4 impacts the rate of increase in residual deflection shall be stabilised, meaning that there shall be no increase in measured residual deflection and the sample shall show no damage.

It shall be stated in the ETA if the partition has a rigidity to be used as a substrate for ceramic tiling.

If the test according to 2.2.9 has been performed, it is not necessary to perform the test in accordance with 2.2.5.1.

2.2.11 Safety against personal injuries by contact

Geometry:

The geometry of positioning of specific features is a function of the works and, therefore, cannot be dealt with by testing or assessment of the kit.

Existence of sharp or cutting edges:

For the assessment of the presence of sharp or cutting edges, no tests are necessary. The product specification, the product itself and trial installations shall be examined to confirm that sharp or cutting edges are not present at, for example, corners, protrusions, joints or trims.

Nature of surfaces:

Assessment of the nature of the surface does not require testing. The product specification and the product shall be examined to determine the surface texture and its degree of risk of abrasion or cutting to people or people's clothing.

The abovementioned provisions apply to the component or the kit as relevant.

The nature of the surface shall be described in the ETA in qualitative terms with regard to the potential risk of abrasion

2.2.12 Resistance to deterioration

Physical agents:

Hygrothermal conditions.

The product specification shall be examined and the materials used assessed for hygrothermal performance primarily in respect of movement.

Where materials of known composition and performance are used, an assessment can be made and no testing is required.

For partitions of complex composition or incorporating hygroscopic materials, a hygrothermal test (see below) may be carried out as follows: A test sample that fully represents the partition under consideration shall be installed in a test chamber with a possibility to control the climate on both sides of the test sample and submitted to the following hygrothermal conditions:

- an atmosphere of 20 °C – 25 °C at 25 %RH – 30 %RH on both sides of the partition for 7 days, then the temperature is reduced to 5 °C for 7 days
- an atmosphere of 20 °C – 25 °C at 25 %RH – 30 %RH on one side and 0 °C – 5 °C at 85 %RH – 95 %RH on the other side for a period of 28 days
- for the effects of radiation, the partition shall be subjected on one of the faces to a localised radiation allowing the temperature of the exposed parts to be brought to maximum surface temperature 50 °C ± 5 °C for 6 hours.

After each exposure, the deflection of the partition is measured. Under any of these conditions, the deflection of the partition shall not exceed the lesser of 1/500 of the height of the partition or 5 mm, the deflection and the corresponding hygrothermal condition shall be given in the ETA.

Chemical agents:

Corrosion

Partition kits intended for use in dry, internal conditions:

No special corrosion protection is necessary for the steel parts in the kit.

Partitions for use in structures subject to internal conditions with usual humidity (e.g. kitchen, bath- and laundry in residential buildings):

Steel parts of the partition made from steel material 1.0038 or 1.0044 acc. EN 10025-2, 1.0976 or 1.0979 acc. EN 10149-1 and -2, 1.0213, 1.0214, 1.1132, 1.5525 or 1.5535 acc. to EN 10263-2, -3, and -4, 1.5523 acc. EN 10269 or 1.0401 acc. EN 10277 2 hot dip galvanized according EN ISO 1461 or EN ISO 10684 with at least 50 µm thickness can be used.

Cleaning agents

The product specification shall be examined to determine the nature of the surfaces.

Where materials of known composition and performance are used, an assessment can be made and no testing is required.

Where materials of unknown composition and performance are used, or where the manufacturer makes specific claims, or where the location of the partition is such that cleaning is an important requirement, tests shall be conducted in accordance with EN ISO 26987 to check the reaction of the partition to substances it is likely to encounter in service.

Biological agents:

This characteristic is only relevant for partition kits with components that are known to be or suspected of being sensitive to biological attack such as wood based panels, wood subframe components, plastics, stones and HPL laminates.

Biological resistance of the kit components shall be assessed according to the relevant hEN or EAD.

The product specification shall be examined and the materials used assessed to determine whether the protection against fungi, bacteria and insects is appropriate for the intended use and whether they will provide food value or contain voids suitable for habitation by vermin

Note: When available, performance included in the DoP regarding the relevant kit components should be used as far as possible to avoid retesting or reassessment.

When the hEN or EAD does not give an assessment method or when there is no relevant hEN or EAD applicable, the following standards shall be taken into account: EN 321, EN 335, EN 350, EN 351-1, EN 460, EN 599-1, EN 599-2, EN ISO 846 or EN 14147.

Test results shall be given according to the relevant hEN, EAD or standard listed above.

2.2.13 Airborne sound insulation

Testing of partitions for airborne sound insulation is performed in a laboratory as described in EN ISO 10140-2.

The abovementioned test applies to the assembled kit, meaning that all relevant components shall be included in the test specimen. The size of the test specimen is determined by the full-size test opening of the test facility.

The measured airborne sound insulation is expressed as a single number rating, $R_w(C; C_{tr})$, in accordance with EN ISO 717-1 and given in the ETA.

2.2.14 Sound absorption

Testing of the sound absorption coefficient of materials is performed as described in EN ISO 354.

The abovementioned test applies to the relevant components of the kit.

The measured sound absorption is expressed as a single number rating in accordance with EN ISO 11654 and given in the ETA.

2.2.15 Thermal resistance

Calculation of the thermal insulation characteristics is performed as described in EN ISO 6946 and where relevant EN ISO 10211.

Testing of thermal resistance is performed as described in:

EN ISO 8990, EN 12667, EN 12939, EN 12664

The abovementioned tests apply to the assembled kit, based on the characteristics of the components constituting the kit.

The calculated or measured value of the thermal resistance (R-value) in $m^2 K/W$ is given in the ETA together with an indication of which method was used, the composition of partition and if calculation was used, the

calculation process and the validation method of calculated results

The effect of any areas of thermal bridging shall be included as a weighted area resultant for the total system based on its R-value.

2.2.16 Thermal inertia

To make it possible to calculate the thermal inertia I of the partition, information on the following properties of the partition shall be given (alternatively, 1-3-4 or 2-3-5):

- 1 total mass per unit area (in kg/m^2) for the assembled kit M
- 2 density of materials used ρ (in kg/m^3)
- 3 heat capacity of materials used H (in J/kg K)
- 4 thermal transmittance of materials used U (in $\text{W/m}^2 \text{K}$)
- 5 thermal conductivity λ (in W/(m K)).

The information given on the total mass per unit area, the density of materials, the heat capacity of materials and the thermal transmittance of materials is given in the ETA.

The total thermal inertia is calculated in accordance with:

$I = \sqrt{U H M}$ or $I = \sqrt{\lambda H \rho}$, depending on whether it is a homogeneous partition (in the sense of a single material) or a partition made of different material layers.

I is expressed in $[\text{J m}^{-2} \text{K}^{-1} \text{s}^{-1/2}]$ and shall be given in the ETA.

If the partition section is a package made of different material layers, see Appendix A of EN ISO 13786 for a simplified calculation method of the heat capacity per unit area $\chi = \rho d c$ (where d = thickness of the layer and c = specific heat capacity, in $\text{J/m}^2 \text{K}$).

3 Assessment and verification of constancy of performance

3.1 System(s) of assessment and verification of constancy of performance to be applied

For the products covered by this EAD the applicable European legal act is: Decision 1998/0213/EC of the European Commission

The applicable AVCP system is 4 for all uses, except

- for fire compartmentation (resistance to fire)
- for uses subject to regulations on dangerous substances
- for uses liable to present "safety-in-use" risks ("safety-in-use" risks are in the context of this EAD considered to be applicable for kits in use category IV) and subject to such regulations

where the AVCP system is 3 and except for uses subject to regulations on reaction to fire.

For uses subject to regulations on reaction to fire the applicable AVCP systems regarding reaction to fire are 1, or 3, or 4 depending on the conditions defined in the said Decision 1998/0213/EC.

3.2 Tasks of the manufacturer

The cornerstones of the actions to be undertaken by the manufacturer of the product in the procedure of assessment and verification of constancy of performance are laid down in Table 6.

Table 6 Control plan for the manufacturer; cornerstones

No	Subject/type of control (<i>product, raw/constituent material, component - indicating characteristic concerned</i>)	Test or control method (<i>refer to 2.2 or 3.4</i>)	Criteria, if any	Minimum number of samples	Minimum frequency of control
Factory production control (FPC)					
1	Identification of kit components Geometry Dimensions Density Corrosion protection Material specification (formulation, composition, chemical constitution, viscosity); by weight, volume, percentage	Specified in control plan	Specified in control plan	Specified in control plan	Specified in control plan
2	Reaction to fire of components	Specified in control plan	Specified in control plan	Specified in control plan	Specified in control plan
3	Checks on production drawings of the kit	Specified in control plan	Specified in control plan	Specified in control plan	Specified in control plan
4	Possible manufactured components	Specified in control plan	Specified in control plan	Specified in control plan	Specified in control plan

3.3 Tasks of the notified body

The cornerstones of the actions to be undertaken by the notified body in the procedure of assessment and verification of constancy of performance for Internal Partition Kits are laid down in Table 7.

The intervention of the notified body under AVCP system 1 is only necessary for reaction to fire for products for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material).

In this case the cornerstones of the tasks to be undertaken by the notified body under AVCP system 1 are laid down in Table 7.

Table 7: Tasks for the notified body

Subject/type of control (<i>product, raw/constituent material, component - indicating characteristic concerned</i>)	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
Initial inspection of the manufacturing plant and of factory production control				
Initial inspection of the manufacturing plant and of factory production control carried out by the manufacturer regarding the constancy of performance related to reaction to fire and taking into account a limiting of organic material and/or the addition of fire retardants.	As defined in control plan	As defined in control plan	As defined in control plan	According to the control plan
Continuous surveillance, assessment and evaluation of factory production control				
Continuous surveillance, assessment and evaluation of the factory production control carried out by the manufacturer regarding the constancy of performance related to reaction to fire and taking into account a limiting of organic material and/or the addition of fire retardants.	As defined in control plan	As defined in control plan	As defined in control plan	According to the control plan

4 Reference documents

EN 1991-1-1:2007	Eurocode 1: Actions on structures – Part 1-1: General actions – Densities, self-weight, imposed loads for buildings
EN 13501-1:2018	Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests
EN 13501-2:2016	Fire classification of construction products and building elements – Part 2: Classification using data from fire resistance tests, excluding ventilation services
EN ISO 13788:2013	Hygrothermal performance of building components and building elements – Internal surface temperature to avoid critical surface humidity and interstitial condensation – Calculation methods
ISO/DIS 8413:1990	Performance standards in building – Partitions made from components – Tests for ability to withstand suspended static loads (available at EOTA office)
ISO/DIS 12055:2002	Building construction – Guardrail systems and rails for buildings (available at EOTA office)
EN ISO 10456:2008	Building materials and products – Hygrothermal properties -Tabulated design values and procedures for determining declared and design thermal values
EN ISO 12572:2016	Hygrothermal performance of building materials and products – Determination of water vapour transmission properties – Cup method
EN ISO 10140-2:2010	Acoustics – Laboratory measurement of sound insulation of building elements – Part 2: Measurement of airborne sound insulation
EN ISO 354:2003	Acoustics – Measurement of sound absorption in a reverberation room
EN ISO 6946:2017	Building components and building elements – Thermal resistance and thermal transmittance – Calculation method
EN ISO 8990:1997	Thermal insulation – Determination of steady-state thermal transmission properties – Calibrated and guarded hot box
EN 12667:2001	Thermal performance of building materials and products – Determination of thermal resistance by means of guarded hot plate and heat flow meter methods – Products of high and medium thermal resistance
EN 12939:2001	Thermal performance of building materials and products – Determination of thermal resistance by means of guarded hot plate and heat flow meter methods – Thick products of high and medium thermal resistance
EN ISO 10211:2017	Thermal bridges in building construction – Heat flows and surface temperatures – Detailed calculations
EN 13523-8:2017	Coil coated metals – Test methods – Part 8: Resistance to salt spray (fog)
EN ISO 26987:2012	Resilient floor coverings – Determination of staining and resistance to chemicals
EN ISO 717-1:2013	Acoustics – Rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation
EN ISO 11654:1997	Acoustics – Sound absorbers for use in buildings – Rating of sound absorption
EN 12664:2001	Thermal performance of building materials and products – Determination of thermal resistance by means of guarded hot plate and heat flow meter methods – Dry and moist products of medium and low thermal resistance

EN 16516:2017	Construction products – Assessment of release of dangerous substances – Determination of emissions into indoor air
EN 13823:2010+ A1:2014	Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item
EN 13238:2010	Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates
EN ISO 13786:2017	Thermal performance of building components – Dynamic thermal characteristics – Calculation met

Annex A Internal Partition Kits – Resistance to impact loads and suspended vertical loads – General

A.1 General

The testing shall be carried out on sample partitions representative of those to be supplied and/or erected in practice fitted into an appropriate test rig. Whenever possible the installation of the test sample shall be carried out by the manufacturer.

The test methods used are the methods described in Annex E but certain elements are modified or amended.

Unless otherwise stated in the test methods, loads and forces shall be accurate to within $\pm 2\%$, dimensions to within $\pm 1\%$, temperatures to within $\pm 5^\circ\text{C}$ and relative air humidities to within $\pm 5\%$ of the stated values.

A.2 Partition sample

The selection of the sample needs careful consideration to ensure that it fully represents the partition kit. Normally, the sample shall be a production partition fabricated in strict accordance with the manufacturer's drawings, specifications and installation instructions.

As a general rule, the highest partition in the range shall be tested as this will tend to be the weakest and, therefore, will allow partitions of a lesser height to be assessed as being at least as good. However, several specimens may need to be tested to gain information about the full range of options available for a given system, for example full height and partial glazing, changes to member size throughout the range, thicknesses, detailing at junctions and corners and inclusion of all necessary features. The number and position of discrete fixings between panels and discrete members shall also be considered.

The principles of the sample are described in Annex E. The sample shall be a straight run of partition (see Figure A1) and shall fully reflect the partition system including all necessary fittings and fixings complete with joints at the top, bottom, end and intermediate positions. The partition sample shall include all integral components, such as glazing, which may have a detrimental effect on the performance levels achieved. If the test sample does not include a door-set belonging to the partition system, a type of door-set commonly used in the type of partition system being tested shall be fitted in the opening. The door-set shall be installed as shown in Figure A1. The door opens towards the observer.

The total length of the sample shall be at least 4,5 m. It shall include at least 3,0 m of straight partition, an opening at least 800 mm wide for fixing a doorset and at least 600 mm of partition flanking the other side of the opening (see Figure A1). For modular partition systems, standard modules shall be used, even if the above dimensions are exceeded. The 3 m of straight partition shall consist of at least three modules.

The test rig shall allow for the fixing of a corner piece or corner element to the free end of the sample for the possible testing of corner trim details, cf. Annex B.2.

The height of the sample shall be that set by the manufacturer. The test rig for testing internal partitions for ceramic tiling shall be at least 2600 mm high.

In case of variations of the basically same kit, additional tests can be performed on smaller test samples.

The way in which components are fixed to each other shall reproduce actual conditions of use, particularly with respect to the nature, type and position of the fixings and the distance between them.

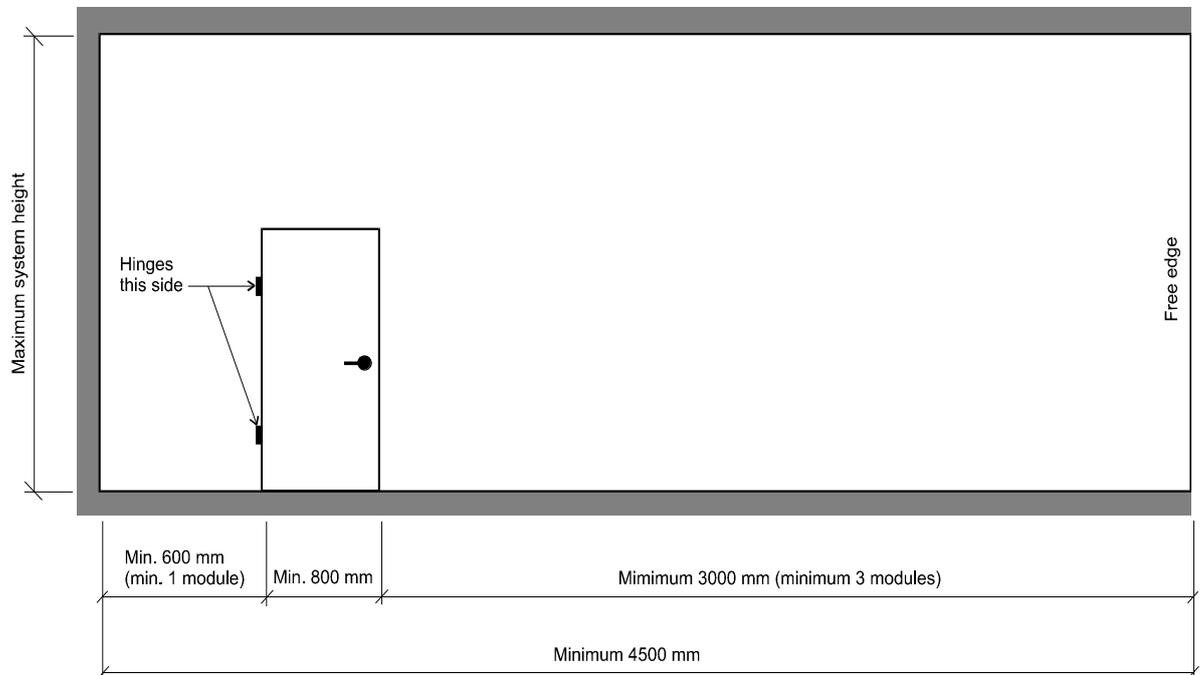


Figure A1 - Partition sample dimensions

A.3 Conditioning

The sample is stored at ambient laboratory conditions

A.4 Sequence of tests

Testing to determine a use category, cf. Annex B can for example follow the sequence given below.

- A.4.1 Hard body impact load – 0.5 kg steel ball – Functional failure test
- A.4.2 Eccentric vertical load – Functional failure test
- A.4.3 Soft body impact load – 50 kg bag – Functional failure test
- A.4.4 Eccentric vertical load – damage test
- A.4.5 Hard body impact load – 1 kg steel ball – damage test
- A.4.6 Soft body impact load – 50 kg bag – damage test.

For partitions to be used as a substrate for ceramic tiling, test A.4.3 in the test sequence is replaced by the test described in Annex C.

Annex B Internal Partition Kits – Resistance to impact loads, suspended vertical loads and horizontal linear static loads – Test methods

B.1 Hard body impact load – 0.5 kg steel ball

Annex E is subject to the modifications to sample construction shown in Annex A.

The load shall be applied at least ten times, each time in a new position, at various heights in areas considered to be weak. For each use category, corresponding to an area category as first described in Table 2, Table B1 gives indications about the position of points of impact in the test sample.

The diameter of any indentation shall be reported. Note shall be made of any damage caused.

Table B1: Definition of use categories – Functional failure – Impact test with hard body (0,5 kg steel ball)

Use category	Area category – description	Functional failure test
I	Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse.	Hard body 2,5 J: points of impact to be set: <ul style="list-style-type: none"> for solid partitions (windowless): at a height $\leq 1,5$ m above the ground for glazed partitions (windowed - total height glazing and partial height glazing): below sill height
II	Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse.	Hard body 2,5 J: any points of impact (no height limitations)
III	Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and of misuse.	<ul style="list-style-type: none"> All partitions except studwork “easy to replace” as glazed studwork: hard body 6 J, any points of impact (no height limitations) Partitions with studwork “easy to replace” as glazed studwork: hard body 2,5 J, any points of impact (no height limitations)
IV	Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	<ul style="list-style-type: none"> All partitions except studwork “easy to replace” as glazed studwork: hard body 6 J, any points of impact (no height limitations) Partitions with studwork “easy to replace” as glazed studwork: hard body 2,5 J, any points of impact (no height limitations)

B.2 Hard body impact load – 1 kg steel ball

Annex E is subject to the modifications to sample construction shown in Annex A.

The Table B2 gives indications about the position of points of impact in the test sample, in areas considered to be weak for each category, corresponding to an area category as first described in Table 2. The impact may need to be repeated at various points on the same element if the weakest point is not obvious.

When testing corner details mounted at the free end of the partition sample, it may become necessary to support (fix) it.

The diameter of any indentation shall be reported. Note shall be made of any damage caused.

Table B2: Definition of use categories – Damage: impact test with hard body (1 kg steel ball)

Use category	Area category – description	Damage test	
		Glazed partitions: (total height glazing and partial height glazing)	Solid partitions:
I	Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse.	N/A	Hard body 10 J: points of impact to be set at a height ≤ 1.5 m above the ground
II	Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse.	Hard body 10 J: points of impact to be set at a height < sill height	Hard body 10 J: points of impact to be set at a height ≤ 1.5 m above the ground
III	Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and of misuse.	Hard body 10 J: any points of impact (no height limitations)	Hard body 10 J: any points of impact (no height limitations)
IV	a Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Hard body 10 J: any points of impact (no height limitations)	Hard body 10 J: any points of impact (no height limitations)
	b Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Hard body 10 J: any points of impact (no height limitations)	Hard body 10 J: any points of impact (no height limitations)
	c Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Hard body 10 J: any points of impact (no height limitations)	N/A

B.3 Soft body impact load – 50 kg bag

B.3.1 General

The soft body impact load – 50 kg bag is used for the determination of the following properties of the internal partition:

- Resistance to functional failure from a soft body impact load – 50 kg bag;
- Resistance to damage from a soft body impact load – 50 kg bag;
- Rigidity of partitions to be used as substrate for ceramic tiling (this item is being covered by Annex C).

The test procedure to be followed is according to Annex E.

The test is carried out according to Annex E taking into account the amendments and modifications described in this Annex.

General condition during the test.

The door shall remain closed during the impact resistance test.

B.3.2 General Resistance to functional failure from soft impact load – 50 kg bag.

For the determination of the resistance of the internal partition to functional failure load the frontal displacement is to be measured.

For this reason, a deflection transmitter shall be fixed to the back of the test sample immediately opposite the point of impact.

B.3.2.1 Points of impact.

The points of impact to be used in the test are depending on the composition of the partition. The Table B3 gives indications about the position of points of impact in the test sample, in areas considered to be weak for each category, corresponding to an area category as first described in Table, making a distinction between non homogeneous partitions and homogeneous partitions (as described in B.3.2.1.1 and B.3.2.1.2).

B.3.2.1.1 Non homogenous partitions

Non homogenous partitions according to this guideline are characterized by a frame construction, using horizontal and/or vertical elements such as studs.

The points of impact shall be chosen along a straight line at a height (H_3) of 1,5 m above the ground unless this interferes with a horizontal member in the frame construction of the partition sample. In this case it may vary between 1,2 m and 1,7 m from the ground depending on whichever results in the greater distance from the underlying frame construction.

The functional failure impacts are carried out both on studs and between studs, each by applying a series of 3 impacts at the same point of impact. (in case of partitions to be used as substrate for ceramic tiling: 3 impacts of 120 Nm and 1 impact of 240 Nm, see Annex C).

Additionally, one series is carried out with the centre of impact at 150 mm from door opening.

The maximum deflection during each impact and the residual deflection after each impact shall be reported. The residual deflection shall be measured five minutes after the impact. Any damage caused and impairment of the operating condition of the door shall be recorded.

B.3.2.1.2 Homogenous partitions.

Any partitions that are not covered by B.3.2.1.1 are considered as homogeneous partitions according to this EAD.

The points of impact shall be chosen along a straight line at a height (H'_2) of 1.5 m above the ground

The functional failure impacts are carried at least on two different points of impact, each by applying a series of 3 impacts at the same point of impact. (in case of partitions to be used as substrate for ceramic tiling: 3 impacts of 120 Nm and 1 impact of 240 Nm, see Annex C).

Additionally, one series is carried out with the centre of impact at 150 mm from door opening.

The maximum deflection during each impact and the residual deflection after each impact shall be reported. The residual deflection shall be measured five minutes after the impact. Note shall be made of any damage caused and of the operating condition of the door.

Table B3: Definition of use categories – Functional failure – Impact test with soft body

Use category	Area categories – description	Functional failure test
I	Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse.	Soft body 3 x 60 J: points of impact to be set along a straight line at a height of 1,5 m above the ground. For non-homogeneous partitions: if this interferes with a horizontal member, height may vary between 1,2 m and 1,7 m depending on whichever results in the greater distance from the underlying frame construction.
II	Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse.	Soft body 3 x 120 J: points of impact to be set along a straight line at a height of 1.5 m above the ground. For non-homogeneous partitions: if this interferes with a horizontal member, height may vary between 1,2 m and 1,7 m depending on whichever results in the greater distance from the underlying frame construction.
III	Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and of misuse.	Soft body 3 x 120 J: points of impact to be set along a straight line at a height of 1.5 m above the ground. For non-homogeneous partitions: if this interferes with a horizontal member, height may vary between 1,2 m and 1,7 m depending on whichever results in the greater distance from the underlying frame construction.
IV	Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Soft body 3 x 120 J: points of impact to be set along a straight line at a height of 1.5 m above the ground. For non-homogeneous partitions: if this interferes with a horizontal member, height may vary between 1,2 m and 1,7 m depending on whichever results in the greater distance from the underlying frame construction.

B.3.3 Resistance to damage from soft body impact load – 50 kg bag.

B.3.3.1 Both non homogenous partitions and homogenous partitions

The damage impact is carried out at a new point and this should be the weakest part of the partition system. For each use category, corresponding to an area category as first described in Table 2, Table B4 gives indications about the position of points of impact in the test sample and Figure B1 shows examples on how to carry out the assessment for use category IV on different partition typologies. The point of impact shall be chosen at a height of 1,5 m above the ground: the height of 1,5 m corresponds to the region where human impacts are likely to occur in buildings. However, for some types of buildings, such as gymnasia and warehouses, greater heights may be considered.

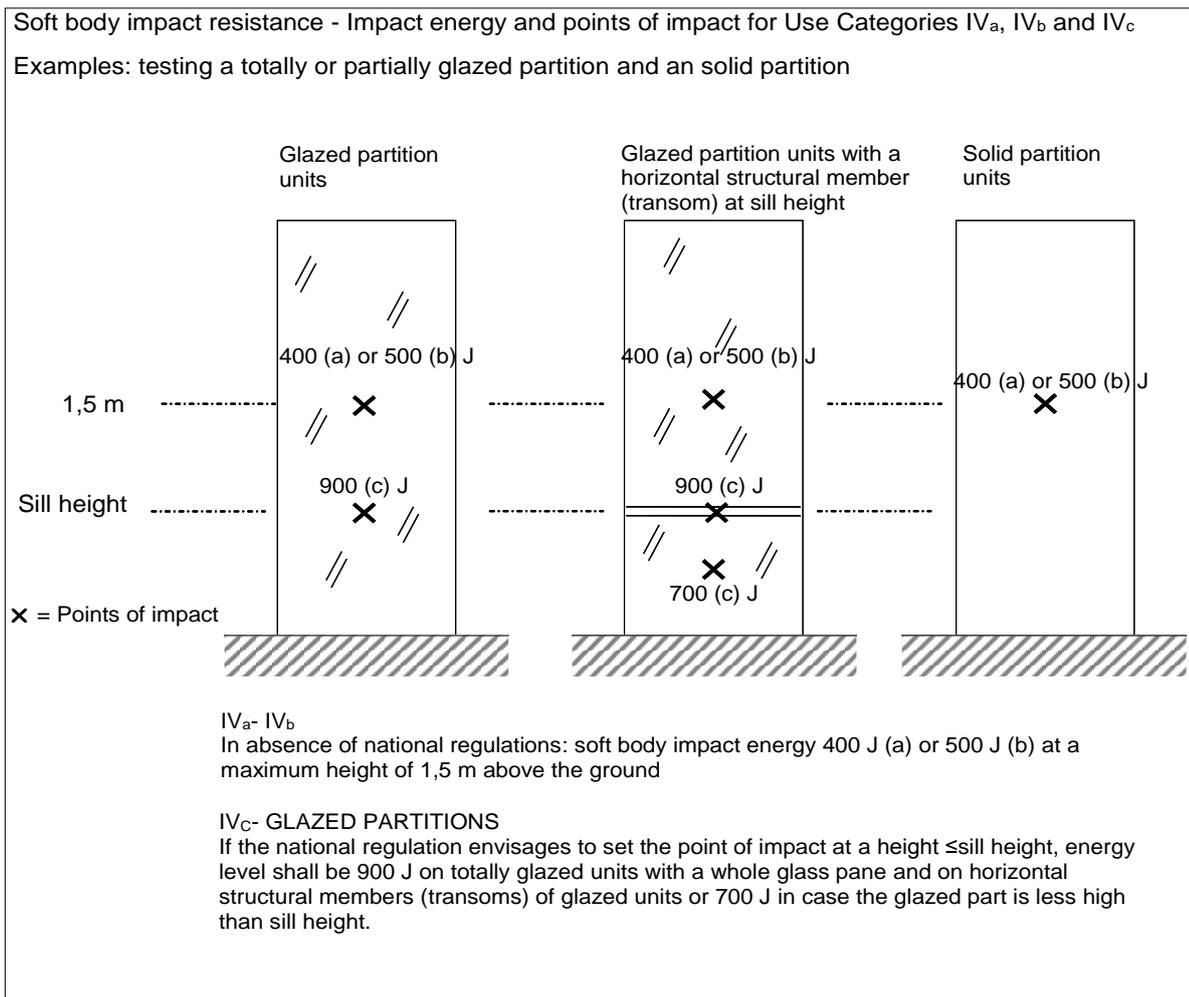
The impact may need to be repeated if the weakest point is not obvious.

Note shall be made of any damage caused (penetration, collapse or other dangerous failure).

Table B4: Definition of use categories – Damage: impact test with soft body

Use category	Area category - description		Damage test	
			Glazed partitions: (total height glazing and partial height glazing)	Solid partitions:
I	Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse.		Soft body 1 x 100 J: point of impact to be set at a height $\leq 1,5$ m above the ground	
II	Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse.		Soft body 1 x 200 J: point of impact to be set at a height $\leq 1,5$ m above the ground	
III	Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and of misuse.		Soft body 1 x 300 J: point of impact to be set at a height $\leq 1,5$ m above the ground	
IV*)	a	Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Soft body 1 x 400 J: point of impact to be set at a height $\leq 1,5$ m above the ground	
	b	Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Soft body 1 x 500 J: point of impact to be set at a height $\leq 1,5$ m above the ground	
	c	Zones and risk as II and III, though risk includes, in case of failure, the fall to a floor at a lower level, cf. type b in Figure 1 in clause 1.1	Soft body 1 x 900 J or 1 x 700 J: point of impact to be set at a height \leq sill height. Energy level of 700 J applies when the height of the glazed part is less than the sill height, cf. Figure B1	N/A

*) Manufacturer has the option to ask for the assessment at energy level of 400 J, 500 J (all partitions) or 900 J (glazed partitions only) depending on the regulatory requirements of the countries where he wishes to market his product – examples in Figure B1

Figure B1: Position of points of impact for use category IV – soft body**B.4 Resistance to damage and functional failure from eccentric vertical loads**

ISO/DIS 8413:1990

Loading Category A is as in clause 7.2 of the standard.

Loading Category B is as in clause 7.2 of the standard but the fixing points are 1 m apart, each fixed at 2 positions 0,6 m apart on vertical lines.

The fixings are located in the middle of the test specimen, unless otherwise specified by the manufacturer.

Loads shall be applied and removed at a rate of approximately 2000 N/min. When the relevant load level for functional failure load (i.e. 500 N or 2000 N) has been reached, the measurement is taken and the load is then removed. The load shall not remain between application and removal. Damage loads (i.e. 1000 N or 4000 N) shall remain for 24 hours between application and removal. Measurements are taken at sufficient intervals.

The maximum deflection under load and the residual deflection shall be reported. Note shall be made of any damage caused.

As an alternative, eccentric vertical loads according to specific requirements related to the loads to be applied in practice may be carried out. This may require different fixing centres and loads and shall be carried out at the request of the manufacturer.

B.5 Resistance to horizontal static linear loads

ISO/DIS 12055:2002 subject to the following modifications.

Of Annex A in ISO/DIS 12055:2002 only chapters A.1 – A.10 are relevant. The below references are to Annex A of ISO/DIS 12055:2002.

B.5.1 Specimen description:

The sample shall be a straight run of partition and shall fully reflect the partition system including all necessary fittings and fixings complete with joints at the top, bottom and intermediate positions. The ends (free edges) shall be free. The partition sample shall include all integral components, such as glazing, which may have a detrimental effect on the performance levels achieved.

The total length of the sample shall be at least 2 m. For modular partition systems, standard modules shall be used, even if the above dimension is exceeded. The 2 m of straight partition shall consist of at least two modules.

The height of the sample shall be that set by the manufacturer.

B.5.2 Failure analysis

The equivalent to a characteristic resistance to horizontal linear static load of the kit is calculated by dividing the maximum load (failure or deflection 40 mm) reached in the test by a safety factor of 2 - 5 (the factor depends on failure mode and/or material – if it is a ductile or a fragile material – and is agreed between the manufacturer and the Technical Assessment Body on the basis of an assessment of the severity of the derived damages).

B.5.3 Procedure

The load shall be applied over the full length of the sample and at a height of 1,1 m or – if the kit is equipped with an integral member, e.g. transom, frame – at the height of the guardrail.

The load at which serviceability is compromised or at a maximum of 25 mm deflection is reported

The load at failure or at a maximum of 40 mm deflection is reported and used in the failure analysis described in ISO/DIS 12055:2002.

The test is carried out once.

Annex C Internal Partition Kits to be used as a substrate for ceramic tiling

C.1 Partition Sample

The sample shall be as described in Annex B.

The sample shall be a straight run of partition. The length of the sample shall be at least 3000 mm and at least 3 modules. The height of the sample shall be that set by the manufacturer but not less than 2600 mm. The sample shall be without fitting of the ceramic tiling.

C.2 Conditioning

The sample shall be conditioned at ambient laboratory climate for 7 days.

C.3 Apparatus

The load shall be applied by means of a 50 kg soft body in accordance with Annex E.

The deflection transmitter shall be fixed to the back of the test sample as close to the point of impact as necessary for accurately measuring the movement of the surface behind the point of impact. For partitions of panels on a frame structure this means to the back of front panel(s), if necessary through an opening in the panel(s) on the back of the partition sample.

C.4 Test

The centre of impact shall be halfway between two studs horizontally and at half height of the partition sample above the ground vertically. If this interferes with horizontal members in the frame construction, it shall be lowered to a height that produces the greatest distance to the underlying frame construction, but not less than 1200 mm above ground.

The centre of impact shall remain the same for all four impacts.

The maximum deflection during each impact and the residual deflection after each impact shall be reported. Note shall be made of any damage caused.

Annex D EN 13823: Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item

Mounting and fixing provisions

D.1 Terminology

Module:

A module in the context of this Annex is a sample of the kit fully reflecting all main components (e.g. board, frame, insulation and fasteners) in the kit cut to fit the size of the test rig. Components made for openings in the partition kit are not part of the module.

Extended application:

The outcome of a process (involving the application of defined rules that may incorporate calculation procedures) that predicts, for a variation of a product property and/or its intended use application(s), a test result on the basis of one or more tests to the same test standard.

D.2 Mounting and fixing in accordance with EN 13823

D.2.1 Dimensions of the test rig

The test rig consists of a corner with a long (1,0 m) and a short (0,5 m) wing. The long wing consists of 2 modules, with one vertical and one horizontal module-to-module joint in between. All modules shall be tested vertically. The dimensions of the specimens shall be:

Assembly dimensions (mm – nominally)		
	Length	Height
Short wing	495	1500
Long wing (see figure D1)	200 + t	1500
	800 - t	1500
Where t = thickness of the kit		

D.2.2 Test specimen

The internal partition kit shall be mounted and fixed according to EN 13823.

The test specimen shall fully represent all the envisaged components in the end use condition as specified by the applicant. The external surface of the kit used in the test assembly shall always include all facings and/or coatings that are applied to the product, as placed on the market. Each facing and/or coating shall be considered but extended application rules mentioned below shall apply, using regrouping in families.

Influences of different colours of facings or coatings can be determined by performing tests on a light, on a dark and on a colour in the middle of the range.

The assembly including corner and joint details shall be as specified by the applicant and in accordance with the end use conditions. Where several corner and jointing materials/profiles are foreseen, possible extended application rules may apply.

Where the kit consists of boards on a frame, the largest frame thickness (perpendicular to the face) envisaged shall be used in the test. Test performed on timber framework also apply for metal framework. Where the applicant claims a better performance with a metal frame or where the applicant does not use

timber framework, the test can also be performed with the most onerous (related to dimensions and thickness of the profiles) type of metal framework.

Where relevant, the insulation material used shall be as specified by the applicant and represent end use conditions.

The type and dimensions of materials and products used, the dimensions and location of possible fixings etc. shall be recorded in the test report and described in the classification report.

The manner in which the product is tested, and the number of different tests conducted, has a direct consequence upon the scope of the applicability of the classification(s) to potential variations in product properties and the range of end use conditions that may be adopted in practice (see also clause D.3).

D.2.3 Mounting and fixing of the test assembly

In accordance with EN 13823, the distance between the backing board and the internal partition kit sample shall be 40 mm or greater, the air gap being created by using local spacers at top and bottom. The frame between the backing board and the specimen shall be open to allow ventilation into the gap.

The assembly may be prepared, and fixed together, away from the test chamber. The complete assembly can then be transported to the chamber.

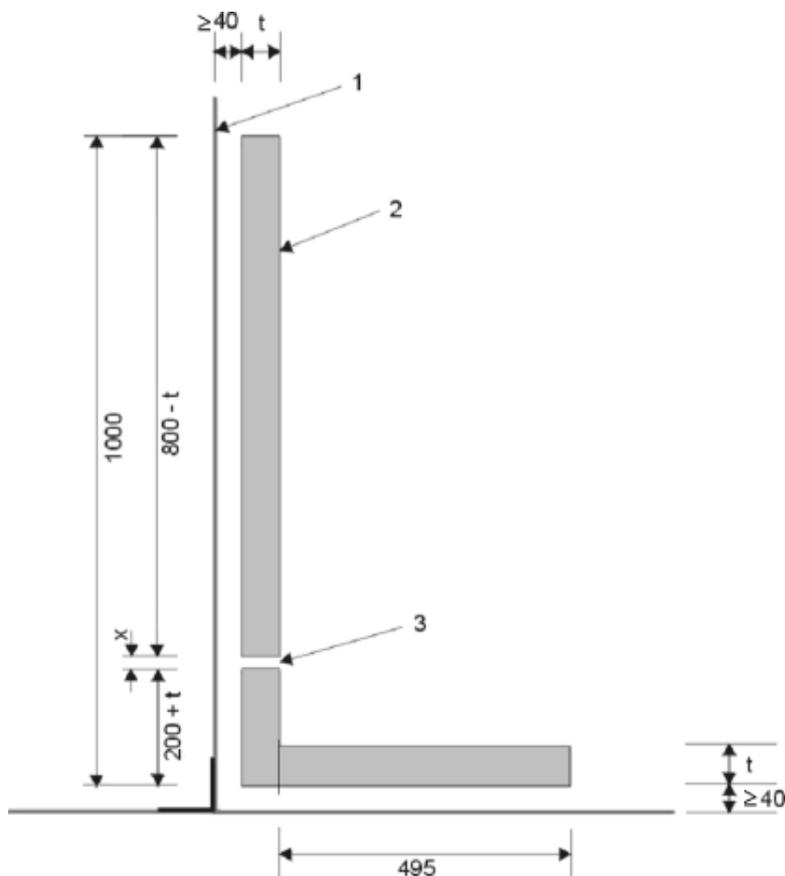


Figure D.1: Test rig configuration

D.3. End Use Application

When determining the testing programme all potential variations in product properties and in its potential end-use condition need to be considered. For this type of construction product, the following provides guidance on the potential end-use application rules that may apply dependant on the testing programme undertaken.

D.3.1 Influence in thickness of the lining boards

If the reaction to fire classification of the partition is given as Class B,s1-d0 or worse then the influence of increased thickness of the lining boards shall be determined as well as the influence of the use of multi-layer boards. Tests shall be conducted, as a minimum, on the lining boards at the two extremes of the thickness range. If the range falls within the same classification, then that classification shall apply to all thicknesses within that range (but see also D.3.6).

If the lining board is classified A1 or A2-s1,d0, only the thinnest board shall be tested. If the lining boards have been subject to separate classification, then the permissible end use conditions appropriate to the board(s) themselves shall apply. Otherwise the thickness of lining boards shall be restricted to that used in the test.

D.3.2 Influence of air space and substrate

Provided that the overall thickness of the partition is greater than 150 mm the influence of the dimensions of any air gap behind the specimen may be disregarded. Otherwise, the distance (X mm) between the partition and the substrate used in the EN 13823 test provides the minimum distance at which the partition shall be positioned from any underlying materials or adjacent constructions when used in practice.

The material forming the opposite face of the air space behind the partition in the EN 13823 test determines the type of element in front of which the partition can be used.

If the partition was tested in front of particleboard, the partition can be used in front of any wood structure or any A2 or A1 product. If the partition was tested in front of gypsum plasterboard the partition can be used only in front of any A2 or A1 product. If the partition was tested in front of calcium silicate board the partition can be used only in front of any A2 or A1 product except plasterboard (for further guidance see EN 13238).

D.3.3 Influence of insulation product

If the partition incorporates an insulation material that is of Class A2 or lower than the influence of any changes in thickness or density of the insulation on the performance of the partition shall be determined. Extended application rules shall apply. If the insulation material is of Class A1, then the density and thickness may be increased without influence on the scope of the classification of the partition, as long as the insulation material is class A1.

If mineral wool is used as insulation material, it shall be the standard mineral wool as indicated in EN 13238. The result is then applicable to all insulation products of class A1.

If the lining boards have been subject to separate classification, then the permissible end use conditions appropriate to the presence of insulation materials behind the boards shall apply.

G.3.4 Influence of surface finishes and colour

The classification of the partition will be influenced by the presence and nature of any applied surface finish, e.g. paint or wall-covering. Possible extended application rules shall apply, e.g. by grouping facings/coatings into families. Any classification scope appropriate to the surface finish may be appropriate to the partition, provided that the partition constructional detail (primarily the nature of the lining boards and insulation product) is covered by the scope of classification for the surface finish.

To determine the influence of colour, the set of 3 specimens for the test shall comprise the darkest, lightest and mid range colours (3 specimens in total). If these yield the same classification (in accordance with

EN 13501-1), that classification will apply to all colours provided the value of each fire test parameter, achieved for each individual test, is at least 10% less than the criteria for that classification (but see also D.3.6).

D.3.5 Influence of joints

The influence of joints may be dealt with using extended application rules.

Where a national regulation exists, a separate additional classification shall be provided for any material included as a jointing material or cover strip. This may not be required to have the same classification as the partition surface itself, dependent upon the national requirements.

D.3.6 General note

If different classifications are obtained when investigating the influence of variation in product properties or end use application, additional testing shall be conducted to redefine the product family to which any single classification applies.

Annex E Determination of impact resistance of panels and panel assemblies

E. 1 Scope

This annex Specifies test methods for impact resistance of panel and panel assemblies.

E.2 Test method for determining soft body impact resistance

E.2.1 Principle

The soft body impact test simulates an impact resulting from a person accidentally falling against the panel.

The soft body is dropped from a height, creating an impact energy, which corresponds with the impact energy released by a person.

The test is conducted with reference to BWR4, i.e. verification whether the panel or panel assemblies would prevent a person falling through, and to serviceability, i.e. verification whether they would still perform as intended.

E.2.2 Test apparatus

The soft body impactor should be a spherical canvas bag of diameter 400 mm (± 40) (see Figure E.1) filled with 3.0 mm (± 0.3) diameter glass spheres to give a total weight of 50 kg (± 0.5).

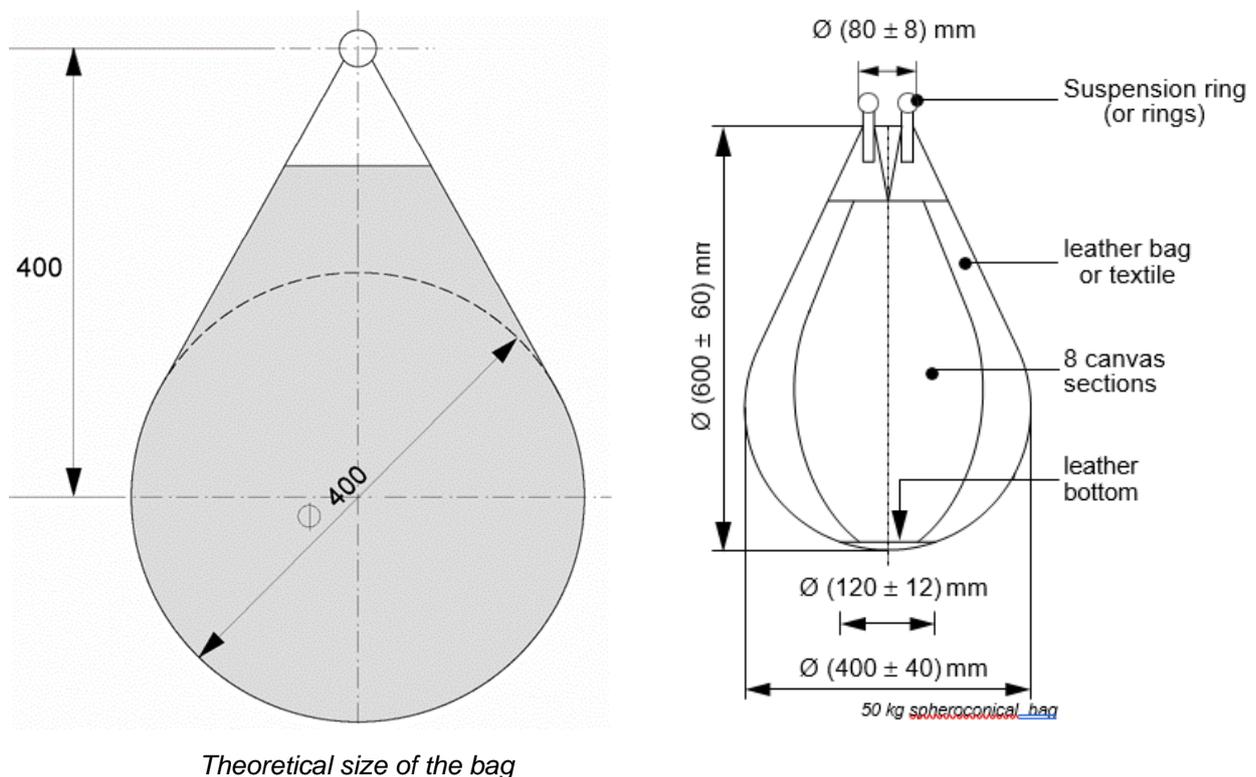


Figure E.1 – Soft body impactor

E. 2.3 Number of tests

E.2.3.1 Functional failure impact resistance

The test shall be carried out on one test assembly, and generally consists of at least three impacts with the same energy at about the same point of impact. The point of impact should be the one deemed most onerous for the assembly under examination.

If various impact energies are being tested, new assemblies should be tested for each impact energy.

E. 2.3.2 Damage in use impact resistance

The test shall be carried out on one test assembly, and consists of one impact.

The point of impact should be the one deemed most onerous for the assembly under examination.

If various impact energies are being tested, new assemblies should be tested for each level of impact energy.

Note - The functional failure and damage in use impact test should not be carried out on the same assembly, unless the manufacturer of the test so wishes.

E.2.4 Conditioning and test conditions

The panel conditioning shall be recorded, where required.

The conditioning period, if any, shall be agreed with the manufacturer.

The test shall be carried out in normal laboratory circumstances.

2.5 Test assembly

The panels shall be mounted in accordance with the manufacturer's installation specifications, with regard to the intended use (floor, wall or ceiling panel), so that the test assembly corresponds as much as possible with end use conditions.

The manner in which components are fixed to each other shall reproduce actual conditions of use, particularly with respect to the nature, type and position of the fixings and the distance between them.

If the manufacturer's specifications foresee more than one possible end-use assembly, the test shall be performed at least on the most onerous one.

The manufacturer has the possibility to test additional assemblies, if he claims better performance.

In principle, the most onerous assembly shall be:

- panel: the panel with the highest ratio length (or height) over width in its minimum thickness;
- span: maximum distance between supports.

2.6 Test procedure

In this test, the soft body impactor, with mass (m) is dropped from a height (h), so that the total impact energy ($E = g \times h \times m$) corresponds with one of the following energies E in Nm: 60, 100, 120, 130, 200,

240, 300, 400, 500, 600, 700, 900 and 1200.

Note - In most cases $g = 9,81 \text{ m/s}^2$

The height (h) is measured between the designated point of impact and the height of release of the soft body impactor.

For tests conducted on wall assemblies the angle α shall always be smaller or equal to 65° (see Figure E.2).

The bag is held vertically when released (not horizontally).

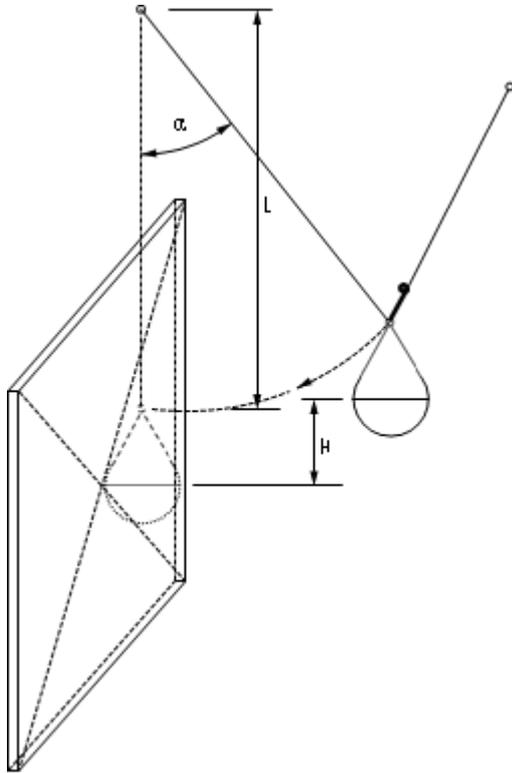


Figure E.2 – Impact on vertical assembly h = drop height; L = length rope; $\alpha = 65^\circ$

2.7 Expression of test results

The test result is pass/fail, depending on whether the panel assemblies meet the following combined criteria:

For damage in use:

- no collapse: the test result is favorable when, after the test, the panel or assembly maintains its mechanical integrity and is still capable of carrying its own weight in the tested position;
- no penetration: the test result is favorable when, after the test, the impactor has not passed through the test specimen;
- no projection: the test result is favorable when, after the test, the impactor has not created parts of the panel (e.g. core, face, reinforcement) to project from the face of the panel, on the other side of the specimen than the impact side, creating sharp cutting edges or surfaces likely to cause personal injury by contact.

For functional failure:

- no penetration: the test result is favorable when, after the test, the impactor has not penetrated the face of the test specimen on the impact side of the specimen.
- no degradation: the test result is favorable when, after the test, there are no visible (to the naked eye) cracks, depressions, protuberances or any other defects in the materials, which may influence the intended use of the panel or assembly. Deformations, which only affect the appearance, are allowed, but should be mentioned in the test report.

In a favorable test result, the report shall indicate any damage (e.g. localized surface cavities of small dimensions, scratches, wear marks in the form of grooves, etc.).

For extended application of the test results, the general rule is that test results for the most onerous assembly can be used to reflect the behavior of others.

2.8 Test report

The test report shall include:

- reference to clause 2 of this annex;
- the name of the testing laboratory;
- the name of the ETA applicant (and manufacturer of the panel);
- date of the test;
- description of the test instruments;
- identification of the product tested (designation, dimensions and any relevant identification characteristic);
- surface structure (e.g. smooth, profiled, structured...);
- description of the sample tested, and reference to its marking;
- description of conditioning and preparation of the sample (if any);
- description of test conditions (temperature and RH), where required;
- results of the test, including a description of damage (if any).

3 Test methods for determining hard body impact resistance

3.1 Principle

The hard body impact test simulates the impact, resulting from an object accidentally falling against the panel.

The hard body is dropped from a height, creating an impact energy, which corresponds with the impact energy released when furniture or similar objects with the panel.

The test is conducted with reference to BWR 4, i.e. assessment whether the panel or panel assemblies would prevent an object falling through, and to functional failure, i.e. verification whether they would still perform as intended (e.g. with reference to water vapour tightness).

3.2 Test apparatus

For damage in use, the hard body impactor should be a steel ball, with a diameter of 63.5 mm (± 1), with a mass of 1030 g (± 40) (1 kg steel ball).

For functional failure, it should be a steel ball, with a diameter of 50 mm (± 0.5), with a mass of 514 g (± 19) (0.5 kg steel ball).

3.3 Number of tests

3.3.1 Functional failure impact resistance

The test shall be carried out on one test panel, and generally consists of at least three impacts at approximately the same point of impact.

The point of impact should be the one deemed most onerous for the assembly under examination.

3.3.2 Damage in use impact resistance

The test shall be carried out on one test panel, and consists of one impact.

The point of impact should be the one deemed most onerous for the assembly under examination.

Note - The functional failure and damage in use impact test should not be carried out on the same panel, unless the manufacturer of the test so wishes.

3.4 Conditioning and test conditions

The panel conditioning shall be recorded, where required. The conditioning period, if any, shall be agreed with the manufacturer.

The test shall be carried out in normal laboratory circumstances.

3.5 Test assembly

The panel shall be horizontally positioned on supports (see Figure 4), to allow, in case of an unfavorable test result, the possibility of the impactor going completely through the panel.

The most onerous point of impact should be chosen.

In most cases this will be the centre of the panel, but, for panels with reinforcement (studs, stiffening ribs, etc.) behind a relatively weak face, the most onerous impact position is 25 mm (± 2) from the edge of the reinforcement.

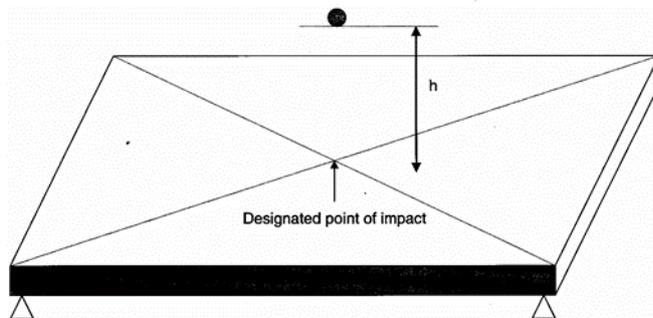


Figure E.3 – Assembly for hard body impact test

3.6 Test procedure

In this test, the hard body impactor with mass (m) is dropped from a height (h), so that the total impact energy ($E = g \times h \times m$) corresponds with one of:

- hard body impact test (1 kg steel ball): 3 Nm or 10 Nm;
- hard body impact test (0.5 kg steel ball): 1.3 Nm; 2.5 Nm; 3.75 Nm or 6 Nm.

Note - In most cases $g = 9,81$ m/s.

The height (h) is measured between the designated point of impact and the height of release of the hard body impactor.

3.7 Expression of test results

The test result is assessed, depending on whether the panel assemblies meet the following combined criteria:

Damage in use:

- no collapse: the test result is favorable when, after the test, the panel or assembly maintains its mechanical integrity and is still capable of carrying its own weight in the tested position;
- no penetration: the test result is favorable when, after the test, the impactor has not passed the test specimen;
- no projection: the test result is favorable when, after the test, the impactor has not created parts of the panel (e.g. core, face, reinforcement) to project from the face of the panel, on the other side of the specimen than the impact side, creating sharp cutting edges or surfaces likely to cause injury by contact.

Functional failure:

- no penetration: the test result is favorable when, after the test, the impactor has not penetrated the face of the test specimen on the impact side of the specimen;
- no degradation: the test result is favorable when, after the test, there are no visible (to the naked eye) cracks, depressions, protuberances or any other defects in the materials, which may influence the intended use of the panel or assembly. Deformations, which only affect the appearance, are allowed, but should be mentioned in the test report.

In a favorable test result, the report shall indicate any damage (e.g. localized surface cavities of small dimensions, scratches, wear marks in the form of grooves, etc.).

For extended application of the test results, the general rule is that test results for the most onerous assembly can be used to reflect the behaviour of others.

3.8 Test report

The test report shall include:

- reference to the clause 3 of this annex;
- the name of the testing laboratory;
- the name of the ETA Applicant (and manufacturer of the panel);
- date of the test;
- description of the test instruments;
- identification of the product tested (designation, dimensions and any relevant identification characteristic);
- surface structure (e.g. smooth, profiled, structured...);
- description of the sample tested, and reference to its marking;
- description of conditioning and preparation of the sample (if any);
- description of test conditions (temperature and RH), where required;
- results of the test, including a description of damage (if any).

Annex F Rules for extended application of test results of fire resisting elements

PART 1 - GENERAL

1. Scope

This document and the rules contained within Part 2 have been developed by the Group of Notified Bodies - Fire Sector Group in response to a request for the European Fire Regulators Group to facilitate extended application in advance of the extended application standards for partitions being produced by CEN TC127.

The products currently covered in the annexes are:

Part 2 Partitions

Part 3 Glazed screens

2. Extended application

CEN TC 127 has defined extended application as:

“The outcome of a process (involving the application of defined rules that may incorporate calculation procedures) that predicts, for a variation of a product property and/or its intended end use application(s), a test result on the basis of one or more test results to the same test standard.”

The methodology adopted in the prediction of fire resistance performance is based on universally accepted rules, some of which incorporate calculation methods and some of which may be ‘agreed expert opinion’ based on ‘common technical appreciation between experts’. The basis of development of the rule varies according to the different philosophies employed for different elements.

Consequently, in order to reduce the likelihood of disagreement between Notified Bodies and to increase the acceptability of an extended application, any judgement outside the rules or agreed expert opinion cannot be considered as part of extended application.

3. General

3.1 Supporting information

3.1.1 Primary Information

In order to undertake any extended application, suitable test evidence shall be supplied. Primary test evidence shall satisfy the following conditions:

- It shall have been generated by a body notified under the Construction Products Regulation as capable of testing or certifying such materials/products against the relevant standards.
- It shall have been generated from full tests carried out solely to European standards

3.1.2 Secondary information

Secondary evidence e.g. indicative tests to ENs, or full tests to existing national standards may also be used in support of EXAP in certain cases. The acceptability of using indicative tests is given in the relevant section and varies according to the different philosophies employed for different elements. General principles for the use of existing national tests are given in GNB-FSG document N 159. The default condition is to use only data produced by tests to European standards.

3.2 Permitted changes

3.2.1 General

The changes permitted in 3.2.2 and 3.3.3 are applicable without the need for justification. However, where the general principle cannot be applied e.g. for a particular product or product property, the restriction will be specified.

3.2.2 Interpolation

Interpolation between two measured fire performance parameters for a given range of a product property is permitted for all product properties where the relationship between the two measured fire performance parameters is linear. For non-linear relationships interpolation is not allowed.

3.2.3 Extrapolation

Extrapolation of any measured fire performance parameter is permissible for all product properties in either direction where the relationship between the two measured fire performance parameters is linear. For non-linear relationships extrapolation is not allowed.

3.2.4 Multiple changes

The number of changes that can be made using these rules varies according to the complexity of the rule and the type of construction being considered. For some constructions and some rules, multiple simple changes can be undertaken without any detailed consideration. However, for other types of construction and/or for more onerous changes, then sometimes only one change can be made. If more than one change is required then a further evaluation will be needed e.g. by a calculation. Some examples taken from the current annex on partitions are given below.

An example of multiple simple changes that can be carried out without further evaluation would be to increase the dimensions of a stud (width, thickness, but not length) in a partition up to 4 metres high, whilst also adding mineral wool insulation. These two changes do not interact to reduce the fire resistance of a partition and so both can be carried out.

An example of multiple changes that would require further evaluation would be to increase the thickness of the facings of the partition by up to 50% and to change the shape (cross section) of the stud. The ability of the modified studs to support the extra weight of the faces would need to be considered and calculated.

The extent to which each type of construction can have single or multiple changes applied is given in the appropriate annex for that product or in the referenced EXAP standard, respectively..

4. Procedure for undertaking extended application

The following steps must be followed:

- Collate the evidence from the various sources outlined in 3.1
- Apply the rule(s) from the appropriate annex
- Use linear interpolation/extrapolation as appropriate/required
- Report the extended application according to the requirements of section 5 below.

5. Contents of the extended application report

- Name and address of the Notified Body that is undertaking the extended application
- Name and address of the applicant and details of the extended application request
- Date, reference number and the testing laboratory for each test considered
- Calculations used in the evaluation process
- Drawings and specifications of the product variations approved
- Statement to indicate that the extended application has been carried out in accordance with these rules
- Specific rule(s) from the appropriate annex used to confer the extended application

EXTENDED APPLICATION OF FIRE RESISTING ELEMENTS

PART 2 - PARTITIONS

1. Scope

This Part contains the extended application rules applicable to partitions of the stud and sheet type whereby a lightweight metal framework is covered with a layer(s) of board material on each face. Gypsum plasterboard is most commonly used for this purpose, but this annex is not limited to plasterboard faced partitions.

Partitions made from complete discrete units that are fixed together are outside the scope of this document.

Glazed screens consisting of a framework of timber or metal filled with panes of glass are also outside the scope of this document. These are covered in Part 3.

If the partition being considered includes glazed panels, then the rules for partitions given in this annex are applicable only to the partition part of the construction. Rules for extending the application of the glazed part of the construction are given in Part 3.

Reference should be made to the Fire Sector Group document: Rules for Extended Application of Test Results of Fire Resisting Elements which should be read in conjunction with this annex.

2. Permitted changes

2.1 General

The types of changes permitted given in the Fire Sector Group document: Rules for Extended Application of Test Results of Fire Resisting Elements are also applicable to partitions.

2.2 Multiple changes

The number of changes that can be made using the rules in this annex vary according to the complexity of the rule and the number of modifications being considered. The rules given below have been divided into two types: 'simple' and 'complex'.

For the 'simple' rules (no shading) multiple changes can be undertaken. It is possible to make one, some or all the changes without any without any detailed consideration or calculation.

For the 'complex' rules (shaded grey) then a calculation method needs to be applied. If more than one change is required, then the calculation method must be applied to the partition after all the proposed changes have been made.

Where the required changes include a mixture of 'simple' and 'complex' rules, then the calculation method must also be applied after all the proposed changes have been made.

3. Rules

ITEM TO BE CHANGED	SUPPORTING EVIDENCE REQUIRED	TYPE OF EXAP TO BE UNDERTAKEN	RULE OR CALCULATION METHOD TO PERFORM EXTENDED APPLICATION	LIMITATIONS/ COMMENTS
• CHANGES IN COMPONENTS				
Increase in size of stud section	Full EN test of partition with stud on which EXAP is based	Rule	The dimensions of the section of a stud (vertical member) may be increased without limitation	Increase in size allowed automatically
Change in shape of stud section	Full EN test of partition with stud on which EXAP is based including extra temperature measurements as required by the calculation method	Rule incorporating calculation method	The shape of the section of a stud (vertical member) may be changed provided that the new section is shown by calculation in accordance with the relevant Eurocode to be as strong as the stud tested	Change in shape or size shall neither result in any decrease in bending stiffness nor in any increase in thermal induced bowing. Calculation in accordance with the relevant Eurocode is applied at elevated temperatures.
Increase in thickness of board/facings	Full EN test of partition with board on which EXAP is based	Rule	<p>The thickness of the facings of a partition with non-metallic faces may be increased by up to 50% provided the length of the fixings for the facings (boards) are increased pro-rata. Maximum height of partition restricted to 3m. Metallic facings excluded.</p> <p><i>Existing national test data may be used to justify increases in excess of those given above and metallic faces</i></p>	<p>Consideration may be needed on ability of partition framework to support extra load of thicker facings – hence limit of 50% thickness increase and 3m height. Metallic facings excluded due to increased propensity to induce bowing.</p> <p><i>Existing national test data must demonstrate that changes have no detrimental effect.</i></p>

ITEM TO BE CHANGED	SUPPORTING EVIDENCE REQUIRED	TYPE OF EXAP TO BE UNDERTAKEN	RULE OR CALCULATION METHOD TO PERFORM EXTENDED APPLICATION	LIMITATIONS/ COMMENTS
• CHANGES IN COMPONENTS				
Inclusion of mineral wool insulation (up to 4m height)	Full EN test on partition without insulation	Rule	Partitions tested without mineral wool insulation infill may have mineral wool added without restriction.	Height limited to height tested (normally 3m)
Inclusion of mineral wool insulation (>4m height)	Full EN test on partition without insulation	Rule	<i>Existing national test data may be used to justify mineral wool infill for heights in excess of 4m up to height tested.</i>	<i>Existing national test data must demonstrate that inclusion of mineral wool has no detrimental effect.</i>
INCREASE IN HEIGHT				
Increase in height (above 4m)	Full EN test of partition system	Rule	<i>Existing national test data may be used to justify heights increases in excess of 4m up to height tested.</i>	<i>Existing national test data must demonstrate that increase in height over 4m has no detrimental effect.</i>

EXTENDED APPLICATION OF FIRE RESISTING ELEMENTS

PART 3 –Glazed screens

1. Scope

This Part contains the extended application rules applicable to glazed screens consisting of a framework of timber or metal filled with panes of glass.

Where a glazed screen is part of a partition, then the rules given in this annex are applicable only to the glazed part of the construction. Rules for extending the application of the partition part of the construction are given in Part 2.

The rules are fully described in EN 15254-4 and reference is made to this standard.