

FIRE SAFETY GUIDE

EXHIBITORS



VIPARIS

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1. GENERAL REMARKS

The safety precautions against the risks of fire and panic in establishments open to the public are set-up by the law of June 25, 1980 (General Requirements).

The law of November 18, 1987, gives the particular requirements applicable to exhibition halls. The following text consists of extracts from these regulations in order to facilitate comprehension.

The Safety Committee is very strict as far as the construction of booths is concerned (stability, construction and decoration materials, electrical installation, etc.). Decision taken by the Committee during its visit, which shall take place the day before or on the morning the event opens, shall be implemented immediately. When the Committee makes its inspection, the installation of the booths must be complete. The exhibitor (or his representative) must be present on the booth and must be able to provide fire resistance certificates for all the materials used. Non compliance with this rule may lead to the materials being removed or the booth being prohibited from being opened to the public.

Any more proposals must be submitted for the approval of the Safety Manager of the exhibition. Drawings and technical information must be submitted for this purpose to the organizer at least one month before the exhibition opens.

During the build-up period, the Safety Manager shall monitor the application of the safety measures set out below.

2. BOOTH CONSTRUCTION AND FITTING

2.1. BOOTH FRAMEWORK, PARTITIONS AND LARGE FURNITURE

M0, M1, M2 or M3 shall be permitted for the construction of the framework and of the partitioning of booths and for the construction of large items of furniture (cash desk, counter, display cabinets, separating screens, etc).

CONVENTIONAL CLASSIFICATION OF WOOD BASED MATERIALS

(Order of november, 21th 2002)

The following materials shall be considered as having the characteristics of category M3 materials:

- Solid non-resinous timber 14 mm thick or more,
- Solid resinous timber 18 mm thick or more,
- Wood based panels (plywood, blockboard, fibreboard, chipboard) 18 mm thick or more.

CAUTION: it shall be strictly forbidden to set any type of fitting out whatsoever over the aisles (structure of signboards, walkway, etc).

2.2. EUROCLASS (EUROPEAN STANDARD)

Classification NF EN 13501-1 (no floor)			French Standard	Classification NF EN 13501-1 (no floor)			French Standard
A1	-	-	Non-flammable	C	s1		M2
A2	s1	d0	M0		s2	d0	
A2	s1	d1	M1		s3	d1	
A2	s2	d0	M1	D	s1		M3
	s3	d1			s2	d0	M4
B	s1				s3	d1	non leaking
	s2	d0		E-d2 à F		M4	
	s3	d1		SOL			
C	s1			M2	Bfl		M4
	s2	d0	s1				
	s3	d1	s2				

IMPORTANT: Foreign PVs as well as PVs issued by foreign laboratories (outside of the European Community) are not valid and will not be accepted even if they refer to French or Euroclass standards.

2.3. COATING MATERIALS

2.3.1. Walls coating

Wall finishes (natural fabrics or plastic) must be in M0, M1 or M2 materials. They may be stretched or fixed with staples; Sundry finishes (fabrics, paper, plastic film) which are very thin (1 mm maximum) may be used when fixed in a full bed of adhesive to backgrounds of M0, M1 M2 or M3 materials. Embossed or textured paper, however, must be fixed in a full bed of adhesive onto M0 materials only.

Materials on display may be shown on the booths without any requirements for fire resistance. However, if these materials are used for decorating the partitions of false ceilings, and if they represent more than 20 % of the total area of these elements, the requirements in the above paragraphs shall be applicable to them. However, these requirements shall not apply to trade fairs and booths aimed specifically at interior decoration where fabrics and wall finishes are displayed.

2.3.2. Curtains – Hangings – Net curtains

Curtains, hangings and net curtains may be left loose if they are made with M0, M1 or M2 materials (or made to meet such classification with a fireproofing treatment). They shall however be forbidden on entrances and exits to the booths, but permitted on doors to internal rooms.

2.3.3. Paints and varnishes

Paints and varnishes shall be strictly forbidden if they are deemed to be inflammable (based on nitro-cellulose or alkyds for example).

2.3.4. Floor, podium, platform and step coating

Floor finishes must be in M4 materials and fixed securely. Finishes, whether horizontal or not, to podiums, platforms or steps of a height greater than 0.30 m and with a total surface area greater than 20 m², must be made from M3 materials. If their total surface area is less than or equal to 20 m², these finishes may be formed from M4 materials.

CAUTION: For carpets classified as M3 or M4 laid onto wood, make allowance for the method of fixing. The fire resistance certificates must indicate: “Valid for fixing stretched over any M3 background”.

2.4. DECORATIVE ITEMS

2.4.1. Loose laid elements

Elements for decoration or cladding which are not fixed (advertising panels of a area greater than 0.50 m², garlands, lightweight objects for decoration, etc) shall be constructed from M0 or M1 materials.

The use of signs or advertising panels using white letters on a green background shall be strictly forbidden, as the colours are reserved exclusively for indicating exits and emergency exits.

2.4.2. Floral decorations

Limited use should be made of floral decorations in synthetic materials. If this is not the case, these decorations must be made from M2 materials. These rules shall not apply to specialized trade fairs and booths where such items are exhibited.

NB: For real plants, peat soil should preferably be used and kept permanently damp.

2.4.3. Furniture

There are no requirements for standard furniture (chairs, tables, desks, etc). On the other hand, display cases, counters, shelves, etc must be made from M3 materials (or made to meet such classification with a fireproofing treatment).

2.5. AWNINGS – CEILINGS – FALSE CEILINGS

Booths which have a solid ceiling, false ceiling or awning must have a covered surface area of less than 300 m². If the surface area covered is greater than 50 m², appropriate methods of fire extinction, attended permanently by at least one Safety Manager, must be provided while the public is present. The total surface area of solid ceilings and false ceilings, including those over upper levels, must not be greater than 10 % of the surface area of the level concerned or of the hall.

2.5.1. Awnings

Awnings will be permitted under the following conditions:

- In establishments protected by an automatic water-based fire extinction system, awnings must be in M0, M1 or M2 materials,
- In establishments not protected by an automatic water-based fire extinction system, they must be in M0 or M1 materials,
- In CTS-type establishments (marquees, tents, they must be in M2 materials only).

They must also be provided with an effective fixing system to prevent them from falling and must be supported by a wire mesh network so as to form meshes of a maximum of 1 m².

In all cases, the hanging system and the fixing of ceilings and false ceilings must be in M0 materials. When insulating materials are fixed in voids in ceilings and false ceilings, they must be in M1 materials.

2.5.2. Ceilings and false ceilings

Ceilings and false ceilings must be in M0 or M1 materials. However, it is acceptable for 25 % of the total surface area of these ceilings and false ceilings to be in M2 materials. Light fittings and their accessories shall be included in this percentage; On the other hand, if the ceilings and false ceilings made up of open-worked or net materials, they may be M2 when the area of the solid parts is less than 50 % of the total surface area of these ceilings and false ceilings.

2.6. FIREPROOFING

A guarantee of the category of fire resistance of the materials used in the exhibition halls must be provided at the request of the Safety Manager, in the form of labels of quality, official reports or certificates. Finishes and materials that comply with the safety requirements are available from specialised vendors who must provide the certificates showing the fire classification of the material; For a list of the vendors, contact: GROUPEMENT NON FEU, 37-39 rue Neuilly, BP 249, 92113 CLICHY (Tel.: +33 (0) 1.47.56.30.81).

Fireproofing may provide an M2 classification to materials which are normally fairly inflammable or easily inflammable. This can be done by spraying a special liquid, by applying a paint or special varnish with a paintbrush, or by soaking in a special bath. Fire protection treatment work can either be carried out by the decorators, who must be capable of providing all information on the treatment of the material, or by an approved contractor, who shall provide the exhibitor with a certificate of an approved type on which shall be shown: the nature, the surface area and the colour of the finish treated, the product used, the date of the operation, the stamp and the signature of the operator. Details of approved contractors may be obtained from GROUPEMENT TECHNIQUE FRANÇAIS DE L'IGNIFUGATION, 10 Rue du Débarcadère, 75017 PARIS, Tel.: +33 (0) 1.40.55.13.13.

NB: Fireproofing can only be used on timber panels or on fabrics that are natural or have a high proportion of natural fibres. It is impossible on synthetics and plastic.

VERY IMPORTANT: Reports of foreign origin cannot be taken into consideration. Only reports issued by approved French laboratories can be accepted or certificates from European Labs in EUROCLASS format.

3. ELECTRICITY

3.1. ELECTRICAL INSTALLATIONS

The electrical installation on each booth must be protected, from its entry to the booth, against overloading and against earthing faults. All metalwork must be interconnected and linked to the earth connection on the booth's electricity control panel.

Electrical connections must be made inside connecting boxes.

The electrical cut-off devices must be permanently accessible to the staff on the booth.

3.2. ELECTRICAL EQUIPMENT

Electrical cables

Only cables that do not propagate flames must be used.

These cables will consist of:

- Either C2 class cables,
- Or insulated conductors placed inside pipes that do not propagate flames or profiles that do not propagate flames. All wiring must include on soil conductor linked to the general network via the earth terminal on the booth's electricity control panel.

Electrical apparatus

Electrical apparatus of category 0 must be protected by differential current devices operating at no more than 30 mA.

Electrical apparatus of category I6 must be connected to the earth conductor of the cable supplying them.

Of the apparatus in category II6, those marked are recommended.

Multiple sockets and adaptors

Multiple sockets and adaptors are prohibited. Only connecting boxes shall be permitted.

Halogen lamps (standard EN 60598)

Light fittings on booths which have halogen lamps shall:

- be fixed at a minimum height of 2.25 m,
- be kept away from any inflammable materials (at least 0.50 m from timber and other decorative materials),
- be fixed securely,
- be fitted with a safety screen (glass or fine mesh) to provide protection from a possible explosion of the lamp.

High voltage illuminated signs

High voltage illuminated signs positioned within reach of the public or staff working on the booth must be protected, particularly the electrodes, by a screen made of a material in category M3 at least. The switch to turn them off shall be indicated and the transformers shall be placed in a position that cannot cause any danger to people. Their presence may be indicated with a sign reading "Danger, haute tension" (Danger, high voltage).

3.3. INSTALLED ELECTRICAL POWER

For booths with more than 100 kW of power supply, a plan and instructions for the insulation of the control box or the technical room must be sent to Viparis and the Safety Manager for approval.

4. ENCLOSED BOOTHS – ROOMS CONSTRUCTED IN THE HALLS

4.1. ENCLOSED BOOTHS

Exhibitions sometimes prefer to isolate themselves within enclosed booths. These booths must have exits directly onto the public aisles. The number of exits and their width shall depend on the surface area of the booth, namely:

- less than 20 m²: 1 exit 0.90 m wide,
- from 20 to 50 m²: 2 exits, one 0.90 m wide, the other 0.60 m wide,
- from 50 to 100 m²: either 2 exits 0.90 m wide, or 2 exits, one 1.40 m wide and the other 0.60 m wide,
- from 100 to 200 m²: either 2 exits, one 1.40 m wide and the other 0.90 m wide or 3 exits 0.90 m wide,
- from 200 to 300 m²: 2 exits 1.40 m wide,
- from 300 to 400 m²: 2 exits, one 1.80 with, the other 1.40 m wide.

The exits must be carefully positioned and, if possible, be opposite each other. Only doors or sets of doors with their outer frames at least 5 m away from each other shall be included in the number of exits or units of passage.

Each exit must be marked “Sortie” in white letters clearly visible on a green background. If the openings are closed by doors, these must open in the exit direction, without a locking system and without projecting into the public aisles.

4.2. ROOMS SET-UP IN THE HALLS

Independently from the areas used for display purposes, meeting rooms, restaurants, cinemas and presentation rooms with a stage or sloping floor, etc. can be set out.

Stages and sloping floors with space for people to stand shall have a load-bearing strength of 600 kg per m². Stages and sloping floors with seats shall have a load-bearing strength of 400 kg per m². The steps leading to spaces on the sloping floors shall be a minimum height of 0.10 m and a maximum height of 0.20 m with a tread of at least 0.20 m. In this case, flights of steps shall be limited to 10 and the slope of the treads shall not exceed 45 degrees.

As each case is particular, a detailed drawing shall be submitted to the Safety Manager who will define the measures to be applied.

5. LEVELS ABOVE GENERAL FLOOR LEVEL

5.1. GENERAL

According to the NF P 06-001, upper level arrangements must be strong enough to withstand an overload:

- Level of less than 5 m²: 250 kg per m²,
- Level of 50 m² and more: to 350 kg per m².
- Upper levels must not be covered.

CAUTION: A certificate from an approved organization must attest the stability of these booths with raised levels, the method for calculating weights or resistance certification must be compulsorily submitted to the Safety Manager of the exhibition during the assembly period, before the public opening.

An approved organization must verify the stability on site before the exhibition opens. Piercing resistance must not be greater than what is allowed in the exhibition hall.

Each booth can have only one upper level.

The surface of the raised level should be less than 300 m².

Each booth must be equipped with fire extinguishing, namely:

- a water spray extinguisher, placed at the bottom of each staircase,
- a CO² extinguisher type 2 kg near the electrical panel.

If the surface of the upper level is greater than 50 m², the appropriate supplemental fire suppression means must be manned by at least one security officer during public attendance at the exhibition.

5.2. EMERGENCY EXITS AND PASSAGES

Raised levels must be served by evenly distributed stairs, the number and width depend on the size of these levels, namely:

- Up to 19 m²: one stairway (0.90m wide),
- From 20 to 50 m²: 2 stairways: one with a width of 0.90 m, and the other of 0.60 m,
- From 51 to 100 m²:
 - ✓ 2 stairways with a width of 0.90 m, or
 - ✓ one 1.40 m wide and the other 0.60 m wide.
- From 101 to 200 m²: 2 stairways (one 1.40 m wide, and another with a width of 0.90 m),
- From 201 to 300 m²: 2 stairways (each with a width of 1.40 m).

Only stairs separated by at least 5 m will be taken into account. Exits must be marked with an «Exit» sign in clearly visible white letters on a green background.

5.3. STRAIGHT STAIRS

Straight stairs for public circulation must be constructed so that the steps comply with the rules of art with no more than 25 steps. The height (H) of the steps must be between 13 cm and 16 cm ; depth (D) must be between 28 cm and 36 cm.

The height and width of the steps are linked by the relation $0.60 < 2 H + D < 0.64$ m. Height and width must be the same along the stairway, although this requirement is not applicable to the first step. Landings should be the same width as the stairs. In the case of bidirectional group of steps, their length must be greater than 1 m. Stairs with a width equal to more than a passage unit (0.90 m) must have at least one handrail. Those with a width of two passage units (1.40 m) or more must have a handrail on each side.

5.4. TURNING STAIRS

Spiral stairs must be continuous, with no other landings than the one at each floor. In addition, the exterior tread must be less than 0.42 m. For stairs with a width of less than 0.90 m, the area of the handrail must be outside the area of the stairways.

5.5. MIXED STAIRS

If mixed stair has various straight and spiral sections complying with regulation it is considered to be conform to the regulations, there is no objection to its use in buildings open to the public.

5.6. GUARDS AND RAMPS

According to standards NF P 01-012 and NF P 01-013, guardrails must withstand a pressure of 100 kg per linear meter. The glass panels used as protection must be reinforced or laminated.

The «Security» glass is prohibited.

5.7. PERSON WITH DISABILITIES ACCESS

Over elevated booths, receiving less than 50 people per floor, will offer an equivalent service at ground floor. Other decker booths will have an accessibility elevator complies with the standard NF EN 81-70 and checked by an authorized company before commissioning. Access to the upper level stairs meet the following requirements:

- a minimum width of 1.20 m will be carried out between the handrails,
- the maximum step height is 0.16 m with a minimum tread of 0.28 m,
- the step nosing must have a contrasting color.

A “podotactile” strip at the top of the stairs, will awaken the vigilance and will be placed at a distance of 0.50 m from the first step.

6. EMERGENCY EQUIPMENT

Emergency equipment must remain visible at all times. Access to the various items of emergency equipment (hydrants, hose reels, telephones, fire extinguishers, smoke vent controls, etc) must be kept clear at all times.

On booths that are provided with a hose reel, a 1 m wide space, totally clear of any obstructions, shall be maintained between the apparatus and the public circulation aisles. The use of panels or fabrics to conceal the apparatus shall be absolutely forbidden.

7. OPERATING INSTRUCTIONS

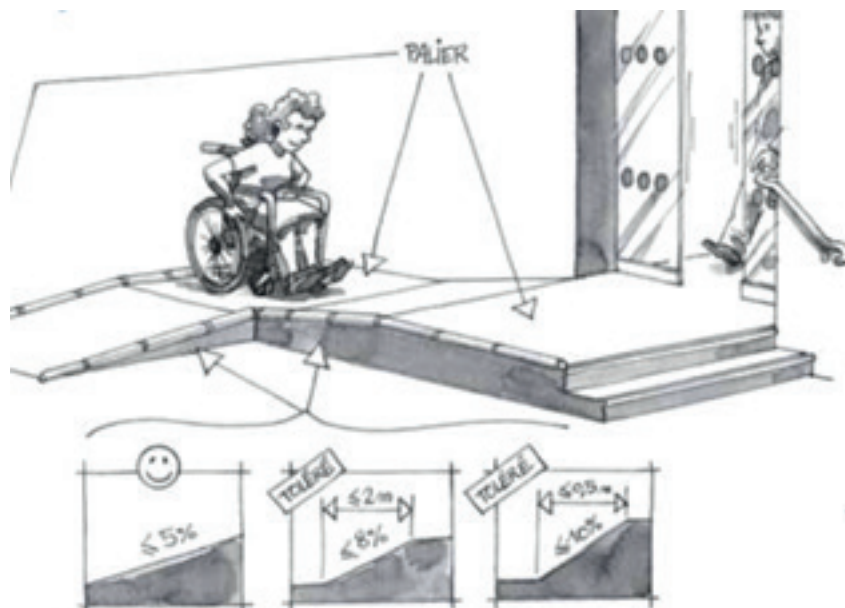
It shall be forbidden to stock cases, wood, straw, cardboard, etc. in the exhibition halls, on the booths or in the aisles.

Regular cleaning (daily) shall be carried out in order to clear the premises of dust and rubbish of all kinds. All refuse arising from the cleaning and sweeping must be removed each day, outside public opening hours, and taken outside the establishment.

8. ACCESSIBILITY

Any booth with a floor from a height greater than 2 cm should be provided with an accessibility ramp included in the area of the booth. The slope is:

- 5% on 10 m,
- 8% on 2,5 m,
- 10% on 0,5 m,
- 33% for 4 cm high (12 cm for a 4 cm high floor).



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VIPARIS