

## Technical Notes: **Outdoor stand structures**

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### on the *Berlin ExpoCenter Airport* (BECA) exhibition grounds

as [advices](#) / supplement to Tech. Guidelines ([TG](#) → Item 4.8) by Messe Berlin GmbH

## 1 Preliminary remarks

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These notes give the technical specifications, [advices](#) and requirements [in reference to item /TG/ → 4.8](#) for stand structures which are to be erected inside the fenced-in outdoor area of the exhibition grounds (*Berlin ExpoCenter Airport* - BECA) of Messe Berlin GmbH.

Where the provisions of this document do not contain any supplementary specifications, the [Technical Guidelines /TG/](#) issued by Messe Berlin GmbH shall apply (→ [www.messe-berlin.de](http://www.messe-berlin.de) – [downloads: Technical regulations and notes](#)).

### 1.1 Outdoor grounds (BECA)

[/TG/ → 4.8](#)

The outdoor grounds of *Berlin ExpoCenter Airport* (BECA) comprise paved or asphalted traffic areas as well as areas with uneven, mostly uncompacted gravel surfaces. They include all areas outside the existing exhibition halls. As a rule these are subdivided into so-called **display areas**, mostly are flagged with white letterings on bottom as follows:

- Displays **A1 – A5**: Surrounding hall A (ILA: hall 6)
- Displays **B1 – B4**: West and southward hall B (ILA: hall 4)
- Displays **C1 – C4**: West and southward hall C (ILA: hall 2)
- Display **D** (reserved by ILA for temporary hall 1); Display **D1**: Southward of display D
- Display **E** (reserved by ILA for Chalet-Modules)
- Display **F**
- Display **G**; Displays **G1 – G3**
- Display **H** (reserved by ILA for temporary hall 3); Displays **H1 – H5**
- Display **I** (reserved by ILA for Chalet-Modules)
- Display **J** (eastward, **outside** the fenced-in BECA exhibition grounds)

**BER – Airport area** (along the south-runway)

- **SDA**<sup>\*)</sup> (*Static Display Area*) with taxiways A (*alpha*) and B (*bravo*)

\*) basically **no exhibition ground**, only for special single events (like ILA) temporary opened to the BECA open area.

The necessary utility supply connections are spaced at irregular intervals. After dark, general lighting will be provided for roadways and paths on the outdoor grounds during the opening times of the event.

### 1.2 Permissible traffic-bearing capability / floor loads

As a rule, designated pedestrian and vehicle traffic areas with asphalt or otherwise paved surfaces are mostly constructed as designated emergency fire accesses / traffic areas in accordance with bridge category SLW 30 /DIN 1072/, and can therefore be traversed by heavy vehicles with a permitted gross weight of up to 30 tonnes (and 10 t axle loads).

On unpaved, partially compacted gravel areas and grass lawns, it is recommended that a **maximum ground load of 150 – 160 kN/sqm. is not exceeded** when distributing the building loads of structures on such surfaces. Appropriate effective and suitable load distribution measures shall be taken [by exhibitors / clients](#) in such locations and, if so required, proof of these measures shall be provided.

### 1.3 Penetration of the building fabric

It is not permitted to damage, soil or enclose existing objects, enclosures, parapets and technical installations (lighting, signs, flagpoles, drainage ponds etc.) of the outdoor facilities and gardens, some of which are protected architectural monuments, and any trees, bushes or plant arrangements of the outdoor grounds, nor may these be structurally modified in any way.

Roadways and designated movement areas for emergency vehicles (like the marked *Fire Lane* in front of the ILA-*Chalets*) may **not** be occupied or obstructed by stand structures, other stand installations or exhibitors' / customers' construction materials. This rule also applies during construction and dismantling. They are intended to provide access for the fire brigades, are marked as such, and must be kept clear across their entire widths and area.

Existing technical safety equipment (including above-ground hydrants, fire pump stations, etc.) on the exhibition grounds shall never be damaged, contaminated or altered in any way. Stand structures, construction materials or exhibits shall not obstruct or interfere with such equipment and installations. Exhibitors are strictly forbidden to carry out work on existing structures or installations on the exhibition grounds.

## 1.4 Anchoring points or foundations in the ground /TG/ → 4.8.2

Messe Berlin GmbH (Dept. *Technical Event Management* / ES 2) must be notified before the commencement of **any permitted ground work** on the site. The ground around the anchoring points will be restored to its original condition by Messe Berlin GmbH or its appointed contractors and a charge will be made for this work.

## 1.5 Definitions, Explanations

According to the local Building Regulations (*Brandenburgische Bauordnung*) /BbgBO, § 61 (1), No.13e/, all stand structures erected on the outdoor grounds and intended for use at events are in all cases classified as temporary structures not subject to specific approval procedures as well as so-called **special structures** with uses similar to those of places of public assembly within the Exhibition Grounds or, depending on the type of construction, as “**temporary structures**” (*Fliegende Bauten*) on the trade fair and exhibition grounds.

Accordingly, such special structures must comply with the conditions and requirements imposed by current public regulations as stated in the local Building Regulations /BbgBO/ and, in particular, with the following rules and regulations in their current, valid version.

- BbgVStättV – *Regulation Concerning the Construction and Operation of Places of Public Assembly in Brandenburg*
- FIBauR - *Guidelines specified by the Ministry of Infrastructure and Agriculture /MIL/ for the Construction and Operation of Temporary Structures*
- DIN EN 13 782\* - *Temporary structure - Tents – Safety*
- DIN EN 13 814\* - **Fairground and amusement park machinery and structures – Safety**

\*) replaces the former DIN 4112 - *Temporary structures; code of practice for design and construction*

In individual cases, in order to implement and ensure decisive, event-related protection objectives, additional special requirements may be specified for stand structures on the outdoor grounds on the basis of the aforesaid regulations and ordinances. Similarly, relaxed requirements may be permitted if compliance with the respective regulations is not necessary due to the particular type of event-related use of an outdoor stand structure.

## 2 Clearances for Stand construction /TG/ → 4.8.1

All stand structures and special structures erected on the outdoor grounds shall be reported and, depending on their type and size, may also be subject to inspection and **clearance**. In all cases, proof of stability must be provided.

### 2.1 Stand structures for which a **clearance** is required

Stand structures on the outdoor exhibition grounds that require approval include all building structures that are either classed as regular *temporary structures* (*Fliegende Bauten*) in accordance with § 76 (2) / BbgBO and FIBauR - verified by valid model approval (**test book**) - or are categorised as such by nature of their type and method of construction, such as:

- **Tent structures, marquees** (also joined together) with a contiguous utilised floor area of  $\geq 75.0$  sq.m  
Tent structures with a floor **area of  $< 75$  sq.m** and similar structures are always classed as *temporary structures*. These are only exempt from model approval and official approval for use but must still in all cases conform to the technical specifications and stability requirements for temporary structures (including conformity to DIN EN 13 782).
- **Viewing tribunes, stages**, including stage canopies and side coverings
- **Playground equipment and equipment for games**, sports or entertainment, fairground rides or stalls  
Like inflatable play equipment (bouncy castles), up **accessible height  $> 5$  m** or **roofed areas  $> 25$  sq.m**
- **Trucks provided with stage structures** or equipped / furnished as presentation trucks

In accordance with a decision of the “*temporary structures*” working committee (AKFIB), parked vehicles which have retractable additional structures at the sides and/or top and which possibly have load-bearing supports may fulfil the general criteria for classification as a “*temporary structure*”, in accordance to § 76 (2), No. 4 /BbgBO/ in which case they are on all accounts subject to approval and permission. If such parked show truck or stage vehicles are intended for use / for being walked on by the general public, appropriate test certificates must be submitted to Messe Berlin.

Normally these vehicles will only be released for use after an on-site inspection / inspection of utilisation of the finished vehicle setup. Messe Berlin reserves the right to take further action or impose special regulations on operation of the vehicle during the event, especially with regard to fire prevention, after documentation has been submitted and inspection has been approved. Any costs resulting from such measures shall be charged to the exhibitor / customer.

- **Free-standing scaffolding** and advertising installations / large viewing monitor or LED screens, free-standing **masts and signalling installations** used for exhibition or presentation purposes
- Other event / show / **presentation areas** ( $> 200$  m<sup>2</sup>) item → 5.2.1

- **Additional extensions** to and structures to existing exhibition halls and / or exhibition marquees
- All other stand structures that can be walked on and/or are roofed over, covered or free-standing:
  - ⇒ platforms, walkways;
  - ⇒ canopies and connecting passageways
  - ⇒ single and multi-storey pavilions and/or container structures;
  - ⇒ structures with a fully enclosed cinema or other type of auditorium and visitor rooms.

## 2.2 Inspection / acceptance of stand structures requiring clearance and their utilization on the outdoor grounds

Here, the requirements of the Technical Guidelines, /TG/ → **Item 4.2.1** apply in all cases.

For testing and approval purposes, possibly with the involvement of the relevant building inspectorate as well, the **complete** stand construction documents must be submitted to Messe Berlin ([Dept. Technical Event Management / ES 2](#)) in **paper form** (1 copy) and as **digital pdf files** (→ [messetechnik@messe-berlin.de](mailto:messetechnik@messe-berlin.de) or only for **ILA** → [ila-technik@messe-berlin.de](mailto:ila-technik@messe-berlin.de)) are required in German or English **at the latest 6 weeks** prior to the commencement of construction.

The following must also be submitted **in addition** for the construction of canopied, enclosed or multi-storey stand installations (pavilions, containers or tents) where the plans provide for rooms / areas for accommodating visitors / trade visitors forming a **contiguous usable area of 200 m<sup>2</sup> or more**:

- d) **Proof of / concept for fire protection\***) stating the materials to be used (test certificates)
- \*) Submission of **verifiable fire protection** proof documents adapted for the interior stand structures and stand use (in accordance to /vfdb guideline 01-01: *Brandschutzkonzept/* is recommended) in German as well as a corresponding **plan of emergency exits and rescue routes** (so-called FuR plan, in at least A4 format), as described in DIN ISO 23601, with **fire safety regulations (Part A)** in accordance with DIN 14096 in a **dual language** version (German and English), which must be displayed at a permanently accessible location inside the stand (in the entrance area) for the duration of the event.
- e) **Pre-Copy of type approval certificate** or a **valid construction execution permit (test book)** is submitted in advance. Messe Berlin will present submitted valid inspection and test logs for *temporary structures* to the responsible testing authority on behalf of the exhibitor, whereupon that authority will conduct an on-site approval inspection at the exhibitor's / customer's expense.

The stand structure is not considered as having been approved until Messe Berlin has confirmed this in writing. The exhibitor / customer will be invoiced for the construction approval process costs and fees incurred. If no verifiable technical, structural stability proof documents and/or documents relevant to fire protection as described above are available, Messe Berlin reserves the right to take further action or to impose additional conditions. The costs of these shall be borne by the exhibitor / customer. The exhibitor / customer may be invoiced additionally for costs incurred due to documents not being submitted on time.

## 2.3 Construction heights for stand structures and event utilization on the outdoor grounds (BECA)

Due to the immediate vicinity of the safety area of the surrounding *Berlin-Brandenburg / Schönefeld* Airport (BER / SXF) and the nearby airplane traffic, the following construction heights limitations and editions of utilization for all stand structures on the *Berlin ExpoCenter Airport (BECA)* exhibition grounds must be observed and are to be complied with:

1. **Maximum height** for all structures / exhibits elements (like poles, radio masts, etc.): **15.0 m** (above ground).
2. For the **usage of telescope cranes** (also for constructive / dismantling work) on the outdoor grounds an **clearance** is mandatory, regardless of the planned working height of the cranes. It has to be announced in writing **at the latest 4 weeks** prior to the application appointment on the outdoor site to Messe Berlin ([Dept. Technical Event Management / ES 2](#)).
3. Due to the immediate vicinity of the safety area of the Berlin-Brandenburg Airport (BER), the use of **balloons filled with safety gas**, the **distribution of balloons** and the operation of any **remote-controlled flying objects (UAV, drones)** is **strictly prohibited** on the outdoor grounds.

## 3. Stability

/TG/ → **4.8.3**

All event-related outdoor stand structures requiring a **clearance** must be of sufficient stability that they do not adversely affect public safety and order and, in particular, do not present a hazard to life and limb. Exhibitors / customers are responsible for ensuring the load-bearing properties and stability of these structures and must supply the relevant documented proof ([Item → 2.2](#)).

### 3.1 Wind loads

/TG/ → **4.8.3.1**

For all outdoor stand structures, the regular wind pressure and suction loads as defined by **DIN EN 1991-1-4** on all supporting roof structures and external walls shall be observed and the required documented proof shall be provided.

For the outer-city trade fair location *Berlin ExpoCenter Airport* (BECA) elevation: approx. 42 m above mean sea level) the following characteristic values for specific locations and simplified wind pressures shall apply:

**Community: Schönefeld (County: Dahme-Spreewald): Wind zone 2** (inland area)

- mean wind speed:  $v_{ref} = 25.0 \text{ m/s}$  (< 28 m/s)
- ref. wind pressure:  $q_{ref} = 0.39 \text{ kN/m}^2$

Simplified gust velocity pressure at:

- stand structure height of up to 10 m:  $q = 0.65 \text{ kN/m}^2$  (→ wind speed resulting pressure [q] on closed walls) (→  $v_m = \text{ca. } 33 \text{ meter/sec.}$ )
- stand structure height >10 – 18 m:  $q = 0.80 \text{ kN/m}^2$  (→  $v_m = \text{ca. } 36 \text{ meter/sec.}$ )
- Stand structure height >18 – 25 m:  $q = 0.93^*) \text{ kN/m}^2$  (→  $v_m = \text{ca. } 40 \text{ meter/sec.}$ )

\*) taking into consideration the site category II

Because of the surrounding urban area, the outdoor fair grounds (BECA) are always classed as a **Category II** site (flat area with less buildings / lower vegetation).

In compliance with **DIN EN 1991-1-4/NA** Table NA.B.5 for temporary, fixed term buildings is permitted the temporary duration of the structure and its proven stability (**without** further safeguards) when exposed to wind:

- Stand structure height of up to 7 m (< 10,0 m)  $q_{red} = 0.7^*) \times 0.65 = 0.46 \text{ kN/m}^2$  (→  $v_m = \text{ca. } 28 \text{ meter/sec.}$ )

\*) **Notice:**

This reduction in the calculative speed pressure applies to the verification of the unsecured structure design. The application assumes that the weather condition is monitored closely enough, if necessary storm warnings by a certified weather service are caught up and **measures for the operation setting** are prepared.

### 3.2 Wind loads for temporary structures

/TG/ → 4.8.3.2

Temporary structures as defined in § 76 /BbgBO (*Building Regulations for Brandenburg*) supported by a regular model approval, are required the valid **test book** in accordance to the calculation and test reports for permission.

In these approval documents are the resistance for wind pressure situations and special operating load cases in accordance with DIN EN 13814, 5.3.3.4 (for event structures) or DIN EN 13782, 6.4.2.2 (for tents) verified.

Temporary structures **without** a regular model approval, are required a structural analysis / calculation based on the local wind condition on BECA-site (→ item 3.1), to be submitted to Messe Berlin (*Dept. Technical Event Management / ES 2*). In such calculation had to be verified the resistance for wind pressure situations and special operating load cases in accordance with DIN EN 1991-1-4 or DIN EN 13814\*) (for event structures).

\*) If the **operating load case** is used in accordance with DIN EN 13814, item 5.3.3.4 (Tab.1), then the required operational setting must be organisationally ensured by the exhibitor / stand operator from a wind speed of  $v_{10} = 15 \text{ meter/s}$  (33 mph) upwards (also for single gusts).

Exceptions may be permitted in cases where they are justified by special reasons, but in these cases more detailed proof of stability must be provided. In justified cases, Messe Berlin reserves the right to arrange for a structural engineer to conduct an on-site inspection of the object's stability and to charge for this service.

### 3.3 Snow loads

/TG/ → 4.8.3.3

Only in the case of stand construction during the winter (Nov. - March) the regular snow loads must be taken into consideration in accordance with **DIN EN 1991-1-3/NA** in connection with the *National Annex* (formerly DIN 1055-5) for all supporting roof structures, and evidence thereof must be provided.

**City of Berlin: Snow load zone 2**

- altitude of site: approx. 42 m, < 285 m above mean sea level
- snow load (minimum):  $s_k = 0.85 \text{ kN/m}^2$

In the case of stand structures that are classified as *temporary structures* (see /TG/ → 4.8.3.2), reduced snow loads in accordance with DIN EN 13782 (*Tents*), 6.4.3.3, or DIN EN 13814 (other *temporary structures*), 5.3.3.5 may still be applied:

- red.  $S_k = 0.20 \text{ kN/m}^2$ ,

if it is possible to prevent the accumulation of snow (snow depth  $\geq 8.0 \text{ cm}$ ) by means of suitable stand construction measures such as heating → 4.2.3 (external surface temperature  $\geq + 2 \text{ }^\circ\text{C}$  on the entire roofing / tarpaulin) or by ensuring, by corresponding operational and organisational measures, that the snow is cleared at short notice while the structures are standing.

It is not necessary to take the further exceptional snow load conditions applicable for the so-called *North German Lowland region* (*Norddeutsche Tiefebene - NDT*) into consideration when planning temporary stand structures, or such conditions shall be prevented by specifying the period for which the stand is to be used and, if necessary, by undertaking corresponding organisational measures (see above).

### 3.4 Severe weather warnings

/TG/ → 4.8.4

In case of expecting weather forecasts, like wind squall, thunderstorms, heavy rainfall, Messe Berlin GmbH will issue a general severe weather warning to all exhibitors / customers who have outdoor stand structures. Thereupon all exhibitors operating either stand structures only permitted with a reduced wind load or *temporary buildings* must immediately take action and shall **cease their operations as follow** (no. 1 – 3).

So that it can provide a direct warning of bad weather to operators of the respective stand structures / pavilions (> 200 m<sup>2</sup> area), Messe Berlin GmbH shall be informed, by the opening of the event at the latest, of the **name** of a **suitable technically responsible person**, together with a mobile phone number, who will be present on the stand or event area during the exhibition / event times and who can then immediately implement the necessary measures to cease operations.

If **operations need to be suspended** following the call for such action by Messe Berlin GmbH, the following measures must be taken immediately by the exhibitor / customer or stand operator:

1. Securing of the stand structure in accordance with the terms of the operating permit (inspection log, proof of stability etc.), including closure of entrances, lowering of stage canopies and/or of sheet covers at the sides of the stage.
2. Complete evacuation of visitors, guests and personnel from the stand structure / event area.
3. If necessary, the entire outdoor exhibition area should be cleared and visitors, guests and personnel shall seek safety immediately in the exhibition halls or by leaving the exhibition grounds. This shall be done upon the instructions and under the supervision of Messe Berlin's security services.

The instructions of the on-site security staff and other employees of Messe Berlin GmbH must always be complied with immediately.

## 4 Stand construction materials and fire protection

### 4.1 Stand construction materials

These specified safety and fire protection requirements apply to all construction materials used for outdoor stand structures and pavilions (≥ 100 m<sup>2</sup> area), like ILA-Chalets.

#### 4.1.1 Guyed structures

Guys and mountings that contribute to the structural stability and are attached to essential ballast points or that secure free-standing masts or advertising installations must be made of non-flammable materials. This applies in particular to the attachment of temporary structures such as stage canopies and tent structures to ballast points.

#### 4.1.2 Glass

/TG/ → 4.8.6

Only verified safety glass suitable for the design, purpose and loads in question may be used for outdoor stand structures. For load-bearing elements made of safety glass, such as flooring, façades or balustrades, the requirements and terms of the following construction DIN-regulations (German Standard) apply exclusively in their current, valid form:

**DIN 18008 (parts 1 – 5) – Glass in Building - Design and construction rules**

Part 1: *Terms and general bases*

Part 2: *Linearly supported glazings*

→ only in german version (available)

Teil 3: *Punktförmig, gelagerte Verglasungen*

Teil 4: *Zusatzanforderungen an absturzsichernde Verglasungen*

Teil 5: *Zusatzanforderungen an begehbare Verglasungen*

On the basis of said construction regulations and the specifications contained therein, and depending on the intended purpose, **all** glass constructions must be in the form of

- vertical glazing – possibly serving as barriers
- overhead glazing,
- glazing capable of supporting persons.

Their stability must be verifiable and the glass construction must be installed according to the applicable regulations.

### 4.2 Special fire protection and safety regulations

/TG/ → 4.8.7

(for enclosed pavilions / rooms and stand structures with a contiguous usable area of ≥ 100 m<sup>2</sup>)

#### 4.2.1 Exits / escape routes

Enclosed stand structures/pavilions or individual rooms with a usable area > 100 m<sup>2</sup> or intended to accommodate > 100 people shall be provided with at least two exits (min. clear width 1.2 m) to the outside or directly to the corridors (escape routes). These exits must be as far away from each other as possible and lead in opposite directions. The **maximum** walking distance between each point within the stand area and its exits shall not exceed **30 m (walking line)**.

All escape and rescue routes including doors are to be clearly indicated by signs in accordance with the *German workplace regulations /ASR A1.3/* (formally DGVU-Nr. 9) – *Signs for safety and health at workplaces*.



## Doors

It must be possible to open double-leafed doors fully and easily from the inside (in the direction of evacuation) using a single handle. In the event that two or more double-leafed doors are located directly next to each other, suitable door stop and lock mechanisms must be employed to ensure that opening the door leaf does not interfere with opening of the neighbouring door. In such cases all leaves must open to a maximum of 90°.

Swinging doors, rotating doors and other access restrictions requiring force to operate them are only permitted on escape and rescue routes if they have certified building authority approval (abZ - *ausweisbare bauaufsichtlicher Zulassung*). Swinging doors on escape and rescue routes must be equipped with a device to prevent them from swinging back. Manually-operated rotating doors / turnstiles on escape and rescue routes are only permitted if they are equipped with a mechanical device that can be used in an emergency to open the rotary door / turnstile fully (across the entire passageway width) and easily from the inside.

Furthermore, the following may be permitted: automatically or electrically-operated sliding door systems, provided that certified building authority approval (abZ - *ausweisbare bauaufsichtlicher Zulassung*) for the respective system can be presented, that the system is installed in conformance with the approval conditions and that escape and rescue routes are in no way impaired by installation of the sliding door.

If an exhibitor installs additional external exit stairs, a level exit platform (i.e. without a threshold) which is at least as wide as the door leaf shall also be installed between the door and the first step.

### 4.2.2 Ash bins, ashtrays

If specific areas for smokers, like open terraces, have been designated within the stand structures, a sufficient number of ashtrays or ash bins made of non-inflammable material and with tight-fitting lids must be provided and these must be emptied by the customer / exhibitor at regular intervals.

### 4.2.3 Heating

The use of **Compressed and/or liquid gas for heating** stand structures is not permitted.

Subject to approval by Messe Berlin, the operation of **heating systems / heaters with suitable oil burners** to heat stand structures is permissible. Systems of this kind, including the associated tanks are always subject to approval and special safety and must conform with protection requirements. Technical documentation regarding heating systems / heaters and the tanks (where necessary with catchment systems), together with information on the external fenced-off installation locations and the intended fuel delivery and safety measures shall be submitted to Messe Berlin (*Dept. Technical Event Management / ES 2*) at the latest 4 weeks before commencing stand construction and as part of the approval application process.

**Electrical heating systems** in stand structures are generally permitted, but shall be immovably secured and their power cables shall be securely fastened. Exposed glowing elements of the heater are not permitted. The rear panels and side parts of radiation heaters and hot-air heaters shall be at least 1 m away from walls and combustible objects. Radiation heaters must be at least 3 m away from objects made of combustible materials and must be located in the primary radiation direction.

### 4.2.4 Lightning protection

Structures and exhibits in the outdoor grounds **shall** be equipped with permanently effective **lightning protection installations** if their location, type of construction or use may increase the probability of lightning strikes or lead to severe consequences in case of lightning strikes.

Furthermore, all temporary stand structures and exhibits with building heights exceeding 15 m **had** on all accounts be equipped with a lightning protection installation as specified in DIN EN 62305-3. For temporary lightning-protection installations, proof shall be provided that a professional installation company or expert or authorised electrical (lightning protection) installation surveyor has conducted an approval / function test and inspection **on site**. The test and inspection report shall be kept available.

### 4.2.5 Fire / smoke alarm systems

For the duration of the event, an **automatically activated alarm system** consisting of at least one round optical smoke alarm in accordance with DIN EN 54-7 must be installed in a technically correct manner ensuring its proper function in every enclosed stand structure/pavilion with a **floor area of  $\geq 100 \text{ m}^2$**  or intended to **accommodate > 100 persons in the same time**.

The alarm should react to hazardous situations by emitting an auditory signal (DIN tone in compliance with DIN 33404-3) and should serve to provide a direct warning to persons in the enclosed stand structure/pavilion. The auditory signal produced by the alarm must be distinguishable from other operational signals and must at all times exceed the general sound level by 10 dB(A), thus the sound emission level of the alarm signal should not be lower than 85 dB(A).

The smoke alarm should be mounted as high up as possible and approximately in the centre of the ceiling in the largest part of the usable area (room). The manufacturer's instructions must be observed when installing the smoke alarm.

For **extended (double-storied), contiguously used stand structure/pavilions ( $\geq 200 \text{ m}^2$  and  $< 400 \text{ m}^2$  usable area)** the required number of smoke alarms shall be increased accordingly and these are to be distributed as evenly as possible to cover the largest possible usable areas (max. distance between alarms approx. 6 – 7 m for approx. 60 – 80 m<sup>2</sup> area to be monitored by each alarm).

All smoke alarms thus distributed shall be interlinked by a wireless system or by cables to ensure that an alarm is sounded simultaneously from the site of any alarm within the entire area and throughout all sections of the stand structure.

To ensure that an alarm can be given at all times, all lounges and rest rooms in an enclosed stand structure/pavilion which are enclosed on all sides (enclosed rooms) and from where the remainder of the pavilion area cannot be seen must be equipped with an auditory warning system as stipulated for the fire/smoke alarm installations described above. Substitute measures may be approved in exceptional cases.

Technically correct installation of the fire alarm installations can be ordered by the exhibitor / customer on his account and the work will be carried out by the company appointed by Messe Berlin GmbH for this purpose. If these systems are installed by other companies or by the customer's/exhibitor's own fair construction company, certification must be submitted in writing (in German) to Messe Berlin GmbH (*Dept. Technical Event Management / ES 2*) at the latest when approval by the final building inspectorate is granted. Such certification shall confirm that the fire alarm system (smoke alarm or similar system) has been correctly installed in the stand structure, that function tests have been successfully carried out (including an activation test) and that the system has been commissioned without any faults.

#### 4.2.6 Fire extinguishers (foam extinguishers should be preferred !)

During construction, dismantling and for the duration of the event, each enclosed stand structure/pavilion measuring 100 m<sup>2</sup> (floor area) or more must be equipped with a suitable fire extinguisher system conforming to DIN EN 3, for fire categories **A, B, (C)**, and with at least 10 extinguishing units (LE).

During construction, dismantling and for the duration of the event, each larger, stand structure/pavilion measuring up 300 to 600 m<sup>2</sup>, including 2-storey stands, must be equipped with two suitable fire extinguishing systems (one for each storey) conforming to DIN EN 3, for fire categories **A, B, (C)**, each with at least 12 extinguishing units (LE). In kitchen / catering areas where food is prepared (heated oil, fat) fire extinguishers suitable for this purpose (fire categories A, F) shall be provided. In larger pavilions (usable/floor area > 600 m<sup>2</sup>) additional fire extinguishers may be required.

All fire extinguishers shall be installed ready for use and at clearly visible and easily accessible points that shall be marked as defined by the *German workplace regulations /ASR A1.3/* (formally DGUV-Nr. 9) – *Signs for safety and health at workplaces*.

#### 4.2.7 Instruction of stand personnel (prior to start of event)

Prior to commencement of event-related use of the enclosed stand structure/pavilion the stand staff and exhibitor's personnel that will be on the stand during the event must be informed, on the basis of the fire safety regulations (at least Part A), about the fire and safety installations that are provided and about what general action to take when the alarm is given or in emergency situations.

In particular, these instructions shall include all stipulations / regulations pertaining to the

- General fire and safety regulations in force on the exhibition grounds (alarm / emergency telephone no.)
- Alarm installations (internal smoke alarms, signal tones etc.)
- Fire extinguishers (location, use)
- Emergency exits and rescue routes (emergency and rescue route plan, supervision of areas to be kept clear and open during the period of the event)
- Special evacuation tasks (e.g. if disabled, deaf or blind people and/or wheelchair users are present)

Documentary proof that staff has been successfully instructed about these issues must be provided in writing and submitted to Messe Berlin GmbH (*Dept. Technical Event Management / ES 2*) no later than at the commencement of the use of the facilities in connection with the event. The name of the person in charge of the stand structure/pavilion (as the customer's / exhibitor's representative who is present there each day) must also be provided, together with a telephone contact number.

## 5 Stand area, structure design and return

/TG/ → 4.8.8

The rented area is marked out on the outdoor grounds by Messe Berlin, or, subject to approval by Messe Berlin, by the event organiser. All exhibitors / customers are required to inform themselves on site about the rented area's location and dimensions and about any fittings, safety installations etc. The boundaries of the stand must be strictly observed.

## 5.1 Floor areas

Carpets and other floor coverings provided by the customer / exhibitor shall be laid in such a way as to avoid accidents and are not permitted to extend beyond the boundaries of the stand.

Exhibitors/customers wishing to lay floor coverings across general visitors' pathways in order to join outdoor stands require special permission to do so and the work has to be carried out in such a way as to prevent **step formation** and **rule out any danger of tripping** and other accidents. Only adhesive tape which can be removed without leaving any residues may be used to hold floor coverings in place and all other materials laid down shall also be removable without leaving residues.

Substances such as oils, grease, paints etc. must be immediately removed from the ground and ground covering surfaces. Any existing ground covering surfaces shall not be painted on or coated.

If any ground areas are left in an exceptionally dirty condition or there are adhesive residues which are difficult to remove, Messe Berlin will charge the extra cleaning effort to the exhibitor / customer.

## 5.2 Advertising measures, flagpoles, presentations and stage areas

The stipulations of the Technical Guidelines, Item [/TG/ → 4.7.7](#) and [5.9](#) apply in all cases.

Exhibitors are only permitted to distribute printed matter and use other means of advertising on their own stands or own event areas. Distribution of printed matter or flyers out of the own stand/event area is only allowed by permission of the event organizer.

Other presentations, optical, slow-moving or acoustic advertising means as well as the reproduction of music ([Item /TG/ → 5.4.1](#)) are permitted, provided that they do not cause annoyance to adjoining stands, and do not congestion or hindrances on the paths or the roadways, or drown out public announcements from the Messe Berlin PA systems in the outdoor grounds.

The sound level of acoustic or musical performances, including peak levels, shall not exceed **70 dB(A)** at the boundaries of the stand or event area during the daily exhibition hours. Messe Berlin shall be informed of and given the corresponding data and documents of all outdoor presentations or performances with intended higher noise / sound levels (> 70 dB(A)). All such presentations and performances, without exception, are subject to notification and approval. Corresponding application information and documents shall be submitted to Messe Berlin ([Dept. Technical Event Management / ES 2](#)) **latest** 6 weeks before start of stand construction.

Exhibitors are aware, especially during the **ILA fair**, that running commentaries or music will be broadcast over the public address system during the show demonstrations of the flying aircrafts. Exhibitors shall not be entitled to object to such broadcasts on the grounds that this interferes with their own presentations, even though such presentations may have been approved by Messe Berlin.

Advertising facing immediately adjacent stands or event areas must be located at least 1.0 m from the boundary to the neighbouring stand or event area. This rule does not apply to exhibits.

If advertising material blows onto the traffic ways, public areas or areas where aircraft operate (like **ILA**) as the result of wind action or any other conditions, those responsible shall be liable for all subsequent damage this may cause and shall bear the cost of any special cleaning work that this necessitates.

Flagpoles / masts on the outdoor grounds shall not exceed a height of 8.0 m.

### 5.2.1 Stage areas for performances and other presentations

Stage areas inside exhibition stands / in event areas are areas reserved for artistic, [sportive](#) or other performances, as well as for demonstrations or presentations.

Exhibitors / customers are obliged to inform Messe Berlin if they intend to operate larger stage areas (50 m<sup>2</sup> and more) for product presentations, possibly with acoustic, musical performances of any kind which may emit higher sound levels on their stand or event area (cf. [→ item 2.1](#)), such presentations being subject to prior notification to authorities. In this case the provisions of the Technical Guidelines shall apply ([/TG/ → 4.7.7, 5.9](#)) and the demands on [/BbgVStättV/ Regulation Concerning the Construction and Operation of Places of Public Assembly in Brandenburg](#).

Messe Berlin ([Dept. Technical Event Management / ES 2](#)) shall be informed in advance if stage areas **larger than 50 m<sup>2</sup>** on the outdoor grounds are planned, in which case a verifiable stand plan, a description of the type of use / programme, sequence of events, participants/performers and any technical stage equipment and sound equipment (stating the expected sound levels) shall be submitted. The provisions of the Technical Guidelines, item [/TG/ → 4.7.7](#) and the currently valid statutory requirements in accordance with [/BbgVStättV/](#) apply without exception to all stage and presentation areas on exhibition stands / in event areas on the outdoor grounds.



In keeping with these provisions for stage areas > 50 m<sup>2</sup>, the exhibitor / customer, when notifying Messe Berlin (Dept. *Technical Event Management / ES 2*) shall also nominate a qualified **event engineering expert (Fachkraft für Veranstaltungstechnik)** as required by § 40 (4) /BbgVStättV/ or a respective supervisor, who shall have proven qualifications for the task, be on site to supervise or manage the setting-up, rehearsals, performances, demonstrations and procedures on the scene areas from the technical / organisational aspect as required by regulation DGUV-No. 17 (formerly BGV C1).

For **stage areas of > 200 m<sup>2</sup>**, Messe Berlin must be informed of the **person responsible for event engineering (Verantwortliche/r für Veranstaltungstechnik)** (who shall be professionally qualified for stage/studio, hall and / or illumination engineering) as required by § 40 (3) /BbgVStättV/ with **certificate of competence** and who is familiar with the stage equipment / lighting and other technical equipment on the stage areas and can ensure their safety and functionality during the ongoing event, particularly with regard to fire prevention.

Even if a performance or presentation has been permitted in advance, Messe Berlin reserves the right to restrict or prohibit performances which cause noise exceeding the approved / permitted levels or are a visual annoyance or which considerably endanger or impair the ongoing exhibition/event or visitors, other exhibitors and event organisers.

### 5.3 Barrier-free accessibility for trade fair visitors to stand structures and installations suitable for pedestrian traffic

Barrier-free access shall be taken into consideration when designing stands, installations intended for pedestrian use and event areas on the outdoor grounds. Persons with disabilities should also be able to access and use stands, installations and separate event areas without assistance.

Where walk-in stand structures which may have multiple storeys and/or event areas on the outdoor grounds are to be freely accessible to visitors, one main entry/exit of the stand construction and/or event area shall be barrier-free. As an alternative, organisational measures regarding operation of the stand (exhibitor's / customer's staff available to provide assistance or similar measures) shall be implemented in order to ensure accessibility, accompaniment and, in particular, emergency evacuation of visitors with impaired mobility and of wheelchair users. Upon request, the exhibitor / customer / stand operator shall explain to Messe Berlin (Dept. *Technical Event Management / ES 2*) what alternative measures are being implemented.

### 5.4 Dismantling, restoration and handing back of the outdoor stand / event area

The stand area /event area shall be handed back to Messe Berlin GmbH (Dept. *Technical Event Management / ES 2*) in its original state, free of all structures and in a clean condition by the specified end-of-dismantling time, at the latest. All rehabilitation work such as the removal of adhesive tapes and ground coverings including all residues, used by the customer / exhibitor, removal / dismantling of ballast weights, anchorages and foundations which may have been permitted must be concluded before this time.

Any resulting demolition rubble shall be immediately removed by the contracting firm appointed by Messe Berlin GmbH. Damaged grassed areas shall be restored exclusively by Messe Berlin GmbH at the expense of the exhibitor / customer. Any damage and contamination caused by exhibitors / customers or their agents or contractors to existing structures or installations / objects on the outdoor grounds must, without exception, be reported to Messe Berlin.

Exhibitors / customers must maintain site security and safety until the stand / event area has been completely restored and handed back.

If the restoration work has not been completed by the end of the stipulated dismantling period, Messe Berlin GmbH shall be entitled to arrange for this work to be done by its own contractors at the expense of the exhibitor / customer.