

# Terms of Use for Special Effects and Decor – SPOT Groningen

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The following terms outline the principles for the use of Special Effects and Decor. The concerned party must submit the product information, application description, and related settings/adjustments to the Project Manager.

## 1. Hazardous substances

Regarding the amount of **hazardous substances** present, compliance with the requirements set in the usage notification and the Building Decree 2012 is mandatory. If a larger quantity of liquid is used, storage must meet the PGS 15 standards.

## 2. Use of flames, cold fire, and CO<sub>2</sub>

Ignition sources must be securely and firmly mounted on a stable structure. Flames must be set up in such a way that they can be immediately disconnected in an emergency and transported safely. The flame height (or fireball) is limited to the maximum height specified in the product description and must not exceed 0.66 times the maximum free height (if the flame reaches 6 meters, the room height must be at least 9 meters). Additionally, it must be determined beforehand if flame detection equipment and/or sprinkler systems are present; any smoke detection must be disabled.

- Small Hall: No CO<sub>2</sub>, sparkulars or gas flames.
- Large Hall: Flames up to 0.66 times the maximum free height, determined per event.
- Indoor Hall: No CO<sub>2</sub>, sparkulars or gas flames.
- City Theater: Flames up to 0.66 times the maximum free height, determined per event.

**A.** Before the event begins, these points must be checked in the presence of the Head of Stage Technology or a representative. No obstacles, decor, upholstery, etc., may be within 2 meters around and above the ignition sources, even if they meet the requirements of the usage permit.

**B.** Flames may burn for a maximum of 3 seconds consecutively. The safe distance from the audience must never be less than that described in the product specifications.

**C.** The installation must be operated by qualified personnel and in accordance with the attached instructions. The operator must always have a clear view of the situation.

**D.** If the preliminary discussion indicates that it is necessary, two certified fire guards must be present during the event near the stage or near the ignition sources. The guideline is to have one fire guard on each side. At least two suitable fire extinguishers must be available for immediate use.

**E.** Clear communication protocols must be established between the pyro operator, security (central), and the fire marshal.

**F.** The barrier line must be marked with "Unsafe - Special Effects in Use" to warn those present for work purposes about the use of special effects.

### **3. Use of Pyrotechnic Effects (PSE)**

*(Large Hall and City Theater ONLY):* This is only permitted by certified pyrotechnicians and requires approval from the Province of Groningen. The user is responsible for timely application and obtaining the permit.

**A.** For up to 20 kg gross total weight, the application must be submitted at least 14 days prior to the event.

**B.** If the weight exceeds 20 kg gross, a firing permit must be obtained from the Province, with an average processing time of 14 weeks.

### **4. Streamers**

For the use of **streamers**, permission must be granted by SPOT Groningen. The additional cleaning fee for using streamers is €500, excluding VAT.

## 5. Confetti (snippets)

The use of **confetti (snippets)** is not permitted.

## 6. Laser Safety Measures

### 6.1 Rules

- a. To create laser effects, use Class 1 and Class 2 lasers as much as possible. While the laser radiation emitted by these devices is not harmful, the laser path and reflections should be directed so that they do not reach eye level for staff and the audience.
- b. When using Class 3 and Class 4 lasers, the beam must be optically focused to ensure that Class 2 limits are not exceeded in areas accessible to the public (the operator must be able to demonstrate this).
- c. If the beam is not focused as per point (b), Class 3 and Class 4 laser beams and any reflections from mirrors must be directed at least 2.5 meters above staff or audience members.
- d. If the above height requirement cannot be met in certain areas, the laser beam must be confined within a fixed structure (e.g., transparent tubing) to prevent accidental exposure.
- e. Mirrors, including rotating mirror balls, must be securely and stably mounted to ensure beam direction remains consistent. Diffuse reflections that reach eye level must not exceed Class 2 radiation limits.
- f. Class 3 and Class 4 lasers may only be used when the beam is focused such that continuous exposure at any point in the space does not exceed a temperature of 80°C.
- g. Lasers must be installed in a fixed, stable position and only accessible to authorized personnel.
- h. Class 3 and Class 4 lasers must have a mechanism allowing the radiation output to be immediately interrupted at all times.
- i. If the laser beam is constantly aimed at a fixed point and persons could inadvertently enter the laser path with a reflective object, safeguards (e.g., photoelectric sensors) must automatically shut off the equipment if the beam is interrupted.

j. Laser light shows may only be performed by a licensed laser operator. During the show, the operator must continuously monitor the laser equipment and beam path, and immediately stop the laser (as outlined in point h) if:

- Equipment malfunctions
- Uncertain conditions arise
- Audience disturbances occur

k. The laser must be switchable by operating personnel to prevent unauthorized activation (e.g., during intermissions).

l. For water-cooled systems, the water outflow must be protected to prevent pinching or blockage.

m. The location's designated safety officer must be informed of the intended laser use well in advance to allow for necessary preparations in coordination with the production team.

n. The laser may only be activated once authorization is granted by the designated safety officer.

o. In the event of a laser tube break, remaining parts must be handled as highly toxic materials (beryllium oxide).

p. The designated safety officer and operating personnel must have a copy of the established safety regulations.

## **6.2 Electrical Hazards**

a. High-voltage sections must have clear warning labels indicating high-voltage risks.

b. Existing micro-switches designed to prevent such hazards must not be bypassed.

c. If the laser is partially or fully custom-made, it must comply with all legal electrical safety standards and regulations.

d. Only personnel with adequate knowledge and experience may work on electrical components. Note that the metal casing may play a role in electrical safety.

## 6.3 Regulatory Framework

The legal basis for safe laser use is outlined in the Working Conditions Decree, Articles 6.12 and 6.27. In addition, the government endorses the Health Council's recommended standards and advises compliance. Manufacturers are required to label lasers with a class indication and warning.

The International Electrotechnical Commission (IEC) has established an international standard (IEC-60825-1) for laser classification, requirements, and use.

## 7. Decor

### 7.1 Materials Guidelines

Material	Requirements
Wood, Hardboard, Plywood, Multiplex, and Particleboard	The material must be at least 3.5 mm thick and meet Class 2 flame spread standards as defined in NEN 6065, 1991 edition, and NEN 6065/C1, 1992 edition.
Softboard	All surfaces must be coated with fire-retardant paint or varnish approved by an authorized institution according to application guidelines, or factory-treated to be fire-resistant. Each sheet must be clearly marked by the manufacturer as fire-resistant.
Straw Bales, Cardboard, Reed, and Straw Mats	The material must be made fire-resistant by immersion in a fireproofing solution for at least 24 hours, and this should be demonstrable through testing.
Textiles (Vertical Application)	Flammable textiles must be made fire-resistant by impregnation or applied to wood, hardboard, plywood, multiplex, or particleboard. Non-combustible textiles must not become flammable due to treatment for special purposes. When exposed to fire or high temperatures, the material should not emit noxious or harmful gases or fumes and must not drip. The fire-resistant quality must demonstrate a post-flame duration of no more than 15 seconds and a post-glow duration of no more than 60 seconds, as determined by NEN-EN-ISO 6940, 1995 edition, and should be classified as "not easily flammable."
Textiles (Horizontal Application)	Decorations such as flags, parachutes, and fabrics should not be installed horizontally against the ceiling unless reinforced with metal wire at a maximum distance of 35 cm, or with metal wire in two directions forming a grid of no more than 70 cm. Flammable textiles

Material	Requirements
	should also be made fire-resistant by impregnation. A written statement must be available to prove fire-resistance.
Plastics (e.g., film material with textile backing)	The material must be applied on a non-combustible substrate or on board, plywood, multiplex, particleboard, or wood with the specified fire-resistant properties.
Plastics (e.g., sheet material)	These materials, and all previously mentioned materials, must comply with NEN 6065, 1991 edition, and NEN 6065/C1, 1992 edition, Class 2. These materials must not emit irritating or harmful gases or vapors when exposed to fire or high temperatures and must not drip.
Paper (e.g., wallpaper, crepe paper, photographic paper)	The paper must be applied on a non-combustible substrate or on board, plywood, multiplex, particleboard, wood, or glass, meeting the specified requirements, or it must be made fire-resistant by impregnation in compliance with NEN 6065, 1991 edition, and NEN 6065/C1, 1992 edition, Class 2.
Lighting Fixtures and Decorations with Incandescent Lamps	Made of non-combustible materials or of plastic with fire-resistant properties that do not drip when heated, and fixtures are of standard commercial quality. The setup must be stable. The light source should be positioned at least 15 cm from any flammable material, and reflected radiation should not reach flammable material within 30 cm from the reflector. The entire assembly must comply with the standards set forth in NEN 3140.

### 7.3 Testing

The materials used may be subjected to tests to determine their combustibility. The materials must meet the following criteria:

- a) No droplets, whether burning or not, are released during heating.
- b) No soot particles are released during heating.
- c) The material flames for no more than 15 seconds and glows for a maximum of 60 seconds after heating.

If the material does not meet these criteria, it is generally advised not to use the material or to treat it with fire-retardant impregnation. If only a small quantity of material is involved, which does not contribute significantly to fire load, an exception to the primary requirement for fire safety may be considered.

#### **7.4 Construction and Mounting**

Decorations, fabrics, and decorative materials must be constructed and mounted in such a way that their fire behavior is not adversely affected by the method of construction or mounting.

#### **7.5 Emergency Exits**

Decorations, fabrics, and decorative materials must also be constructed and mounted in a manner that does not impede the evacuation of people in the event of structural or mounting failure.

#### **7.6 Mounting Materials**

In principle, decorations, fabrics, and decorative materials must be secured with metal fasteners.

#### **7.7 Horizontal Applications**

Horizontally applied textiles, foil, or paper should generally be reinforced with metal wire: either in one direction with a spacing of no more than 0.35 m or in two directions with a grid spacing of no more than 0.7 m. This is a requirement under the Use Decree. If metal wire reinforcement is impractical, horizontal textiles may be safely used by other means that ensure an equivalent level of safety.

#### **7.8 Furnishings and Fixtures**

Under the Use Decree, "furnishings and fixtures" includes stands, booths, shelves, stages, etc., which provides a guideline for certain types of decor and decorations in our industry. Furnishings and fixtures must be sufficiently fire-resistant. Compliance is achieved in the following ways:

- If the material is non-combustible;
- If the material is at least 3.5 mm thick and meets the appropriate fire rating;
- If the material is less than 3.5 mm thick but is fully bonded to a component as described above (i.e., with a thickness of at least 3.5 mm and meeting the appropriate fire rating according to NEN 6065).