# **SCENERY & PROPS – FIRE RISKS**



## Hazards

- Fire
- Smoke inhalation
- Toxic gases inhalation

## **Control Measures**

Care should be taken to limit all set construction and dressing for scenery as a fuel in the event of a fire. Where possible, materials should be treated with a fire retardancy chemical.

All materials used in the construction of scenery has to conform to the following standards:

# **Basic Timbers:**

Any timber used in construction must be fire retardant. Any materials used as part of the set, scenery and stage must be:

- Non-combustible material such as metal, masonry etc.
- Timber, hardboard or plywood treated by a process of impregnation which meets the 'surface spread of flame' rating of Class C-s3.d2 (BS EN 13501-1)
- Timber framing of minimum 22mm nominal thickness
- MDF, plywood or chipboard not less than 18mm thick.

Any plywood, hardboard, chipboard or MDF that does not meet the above dimensions must be branded with a recognised stamp to certify the standard of flame retardancy achieved. Where the stamp is not visible, certificates must be obtained by the set designer / set construction company and retained in the production safety file.

# Wallpapers, Decorative Laminates, Plastics, etc

Wallpaper and any synthetic substitute must be pasted to a flame-resistant surface in a manner which excludes any air space between the material and the surface to which it adheres.

### Paints

Only flame-retardant paints are normally allowed. Other paints, including cellulose nitrate-based paints must not be used on scenery without risk assessment and studio management approval.

### Plastics

Plastics for use in the studios should be either inherently flameproof or rendered flameproof by the use of a suitable fire retardant. Care should be taken to ensure that any plastic used will not emit smoke or drip under heat/fire conditions. As a rule of thumb plastics should not be acceptable if they ignite or burn when a small flame is applied for 12 seconds.

### **Glass Reinforced Plastic**

Fibreglass must be flame-proofed to Class C-s3.d2 (BS EN 13501-1)

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# **Bonding Resins**

Bonding resins must be flame-resistant.

### Adhesives

Water-based adhesives must be used wherever possible. Flammable adhesives must not be applied in studios/stages unless special authorisation is given by the management of that facility.

### Drapes

Whenever possible drapes, curtains and window blinds should be inherently or durably flame-proofed and comply with BS 5687:2008, and BSEN13773:2003. Drapes and curtains which are not inherently or durably flame-proofed must be rendered flame-resistant to a standard which satisfies the BS 3120.

### Carpets

All carpets must conform to BS 4790 (Hot Nut Test).

Carpets may only be attached to a substrate which conforms to Class C-s3.d2 (BS EN 13501-1) and must be firmly fixed.

### Furniture and Bedding

- All furniture and bedding used in must be treated and tested to ensure that it is fire retardant in accordance with BS 7176.
- Notwithstanding the above, if items were purchased after the introduction of the Furniture and Furnishings Regulations in 1988 and are appropriately labelled then it would be reasonable to use these items for the short durations in which they are put to use even though this is a non-domestic setting.
- Any furniture constructed between 1950 and 1988 will contain highly combustible and toxic polyurethane foam and must not be used under any circumstances unless it is treated to a suitable fire-retardant standard.
- Any furniture that pre-dates 1950 will not contain polyurethane foam and may be used without additional treatment to the upholstery or covering

# Artificial and dried foliage

Where practicable greenery (eg dried branches, hay, straw, ferns, grasses etc) should be suitably flame proofed. As flame retardant treatments can be adversely affected by contact with moisture (as this can cause recrystallisation on surfaces), periodic retreatment may be required to maintain the effectiveness of the flame retardant treatment and/or to maintain an acceptable appearance.

Dried flowers and grasses should not be sprayed with hair lacquer or other like substance; as such treatment will only enhance the ease of ignition and rate of lire spread.

In the case of hay, straw etc to be used as fodder or bedding for animals, it must not be flame proofed but only a minimum of untreated material should be kept on site. Other non-flame proofed greenery should be kept damped down at four hour intervals.