

Highly Flammable Liquids in Motor Vehicle Repair: Construction of a spray booth



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Applicable health and safety legislation

- Health and Safety at Work (Jersey) Law, 1989
- Highly Flammable Liquids (Jersey) Regulations, 1979
- Electricity at Work (Jersey) Regulations, 1983

Construction

Walls: 30 minutes fire resistant standard (external walls exempt).

Floor: 30 minutes fire resistant standard (floor immediately above ground exempt).

Ceiling: 30 minutes fire resistant standard (single storey or roof exempt).

All doors: 30 minutes fire resistant self-closing standard (external doors exempt).

Escape door: located at the opposite end of the booth entrance.

Ventilation

Ventilation: mechanical extraction rate such that concentration of vapour in the air is less than 25% of lower explosive limit of the material being used.

To extract to open air.

Ducting: to 30 minutes fire resistant standard.

Fan: with the motor located outside of the ducting in a vapour free area.

Filters: to prevent deposits of paint on motor casings, fan blades and inside ducts.

Heating

Heating: to be indirect, i.e. ducted warm air, hot water or low pressure steam radiators.

Electrical installation

Electrical fittings: it is advisable to exclude electrical equipment from spray booths where possible, i.e. install lights outside booths and shine them through fixed and sealed 30 minutes fire resistant glazing.

Use only explosion protected electrical equipment inside the booth. The selection of appropriate equipment is determined by the hazardous area classification, defined as zones, of the booth. This is the method used to identify areas where flammable vapours are likely to be present. The zone classification will depend on where the spray gun is used, the level of ventilation, the output of the spray gun, the flashpoint of the spray and its vapour density.

Advice on suitable electrical equipment which can be used in the booth should be obtained from a competent electrical contractor.

Fire Fighting

Fire fighting: 9 litre foam and 2 kg CO₂ fire extinguisher at each exit.

Display of Notices

Notices: poster of the Highly Flammable Liquid (Jersey) Regulations, 1979, and 'No Smoking' signs to be displayed.

The guidance given in this information sheet should not be taken as authoritative or comprehensive and does not take the place of the actual Law and Regulations.