

Hazardous Materials Stores



Designed and engineered to meet the requirements for safe and secure storage of highly flammable liquids, petroleum spirits, liquid petroleum gas and pesticides, our range of hazardous material stores provides you with the means to meet the extensive demands of today's legislation whilst at the same time minimising the risk to people and the environment.

With increasing pressure on organisations to ensure that flammable and other hazardous substances are stored safely and in accordance with the relevant Regulations, our Hazardous Materials Stores are designed to provide a cost effective modular solution to meet most client's requirements.

Detail design and specification features ensure the essential qualities of long life durability, inherent non-combustibility, strength and security so vital for the safe storage of hazardous materials.



Applications

Hazardous Materials Stores are designed for the safe storage of the following materials and others which may not be listed:

- Petroleum Spirit
- Petroleum Mixtures
- Liquid Petroleum Gas (LPG)
- Highly Flammable Liquids
- Medical Gases
- Industrial Chemicals
- Paints and Adhesives
- Acids and Poisons
- Pesticides
- Agricultural Chemicals

Standard Specifications

External Walls

Fully galvanised structural steel panels with integral supports. Wall sections are welded to the perimeter of both the bunded base and roof panels.

Floors

Slip resistant spillage bund 150mm deep constructed from 4.5mm thick continuously welded Durbar steel plate.

Doors

External outward opening double doors constructed from galvanised steel, mounted on a zinc plated full height "piano" hinge. With a clear opening of 1945mm wide overall x 2130mm high, the doors are designed to fully open through 180 degrees. TWO five lever mortice deadlocks manufactured to BS3621, a heavy duty door retainer and a number of reassuring anti-jemmy security features are standard.

Ventilation

Natural ventilation is achieved by means of high and low level louvre vents "Permavents" complete with flame arrester gauze and vermin guards located in the external walls.

Base

Perimeter base frame of welded steel angle supported on full length rolled steel channel section skids.

Roofs

Heavy duty fully galvanised and mechanically interlocking structural steel panels rivetted, bonded and sealed with polyurethane adhesive. Rainwater is discharged at each corner via a galvanised steel guttering system to which optional extra rainwater pipes can be simply fitted if required.

External Finish

A zinc rich galvanic primer is applied to all external mild steel surfaces and weld areas. Fully galvanised panels are spray coated with mid grey semi-gloss fast enamel to BS 4800 with trims including base frame, fascia and doors in a contrasting bright red to BS 4800. A coating of semi-gloss solar reflective fast reflector is also spray applied to the roof for added protection.

Floor Loadings

When supported on their skids our Hazardous Materials Stores are engineered to achieve a design load of 8kN/m² for all standard units 2.4m to 3.68m wide (8ft - 12ft).

Lifting Eyes

All Hazardous Materials Stores are supplied with heavy duty roof mounted galvanised steel lifting eyes, ringed for ease of handling and added security.

Configurations and sizes

Hazardous Materials Stores are available in 2.40m (8ft), 3.01m (10ft) and 3.68m (12ft) widths and internal nominal heights of between 2.44m (8ft) and 3.68m (12ft).

Additional capacity and almost unlimited special flexibility can also be achieved by linking units in modular configuration side by side, end to end or side to end to provide large open plan storage complexes to suit most clients' requirements.

Structural Reliability

The extensive use of inherently non-combustible Galvatite steel illustrates our commitment to quality and long life durability. This advanced zinc-rich, "self-healing" material acts as the structural cladding in the wall and roof construction.

Its most important characteristic is its ability to resist corrosion, even after the galvanised surface is chipped or scratched. Supplying the strength and engineering precision of steel eliminating its principle drawback - oxidation.



Foundations

Standard foundation designs are available for each size of building. These assume that a ground bearing pressure of 100kN/m² is available.

However, although simple pad foundations are usually all that is required, professional advice must always be sought in order to establish the extent and nature of prevailing ground conditions prior to delivery.



- BS 5306 Code of Practice for fire extinguishing installations and equipment on premises
- BS 5345 Code of Practice for the selection, installation and maintenance of electrical apparatus for use of potentially explosive atmospheres (other than mining applications or explosive processing and manufacture)
- BS 5378 Safety Signs and Colours Specification
- BS 5423 Specification for portable fire extinguishers
- BS 5499 Fire Safety Signs, Notices and Graphic Symbols
- BS 5501 Electrical Apparatus for potentially explosive atmospheres
- BS 5839 Fire detection and alarm systems in buildings
- BS 5950 Structural Use of Steelwork in Buildings

Enforcement Agencies

Prospective clients should also be aware that the ultimate arbiter of acceptability for hazardous materials store is the appropriate enforcement agency relevant to the materials being stored and premises classification. We therefore strongly recommend the involvement of the appropriate agency at the outset which may include one or more of the following:

- TRADING STANDARDS OFFICERS
- BUILDING CONTROL AND PLANNING DEPARTMENTS
- LOCAL FIRE OFFICERS
- FACTORY INSPECTORS
- LOCAL PETROLEUM OFFICERS
- LOCAL CONSUMER PROTECTION DEPARTMENTS
- LOCAL CRIME PREVENTION OFFICERS
- INSURANCE SURVEYORS

Cabins and Containers (UK) Ltd would be pleased to assist in any such discussions and provide information which may assist prospective clients to obtain the necessary approvals and consents.

Optional Items

Insulation

Insulated walls and roof panels can be provided where double skinned linings are specified. Floors can also be insulated if required.

Linings

Several wall and roof linings are available including galvanised steel, plasterboard, Supalux and Fermacell where specific fire resisting properties are required.

Doors

Where double skinned units are specified the external doors are also double skinned steel to suit. Single, double and emergency exit doors can be provided and located to suit specified or statutory requirements.

Raised Flooring

A Durbar steel plate or galvanised steel open mesh dryaisle raised access floor can be provided above the bunded floor. Alternatively the entire floor area can be fitted with a raised over bund floor.

Electric Installation

Appropriate lighting, heating and ventilation systems can be designed and installed to meet specific requirement, e.g. flameproof and waterproof fittings, mechanical ventilation, etc.

External Finish

Hazguard storage units can be supplied in corporate colour schemes if required.

Jack Legs

Individually adjustable and removable telescopic jack legs with a steel lifting ring welded to the top of each hack leg for crane handling using four-leg slings and bow shackles to BS 6994, can be required of required.

Signage

Appropriate Fire, Safety and Warning signs can be supplied if required.

Shelving

Galvanised steel tiered shelving in various depths can be supplied to meet specific requirements.

Ramped Access

Galvanised slip resistant steel threshold ramps for wheeled trolley or barrow access are available if required.

Legislation & Safety

Whilst Hazardous Materials Stores are designed and engineered to meet the most stringent legislation, we would strongly recommend that prospective clients involve, consult with and take advice from the appropriate enforcement agencies regarding the location and proposed use of the store or stores.

Intended users should also be aware of the appropriate legislation covering the storage of their particular hazardous material, some of which is listed below for guidance:

- Health and Safety (Enforcing Authority) Regulations 1977
- Highly Flammable Liquids and LPG 1972
- Petroleum (Consolidation) Acts 1928/1936
- Health and Safety at Work Act 1974
- Control of Substances Hazardous to Health (COSHH) Regulations 1999
- Fire Certificates (Special Premises) Regulations 1976
- Fire Precautions Act 1971
- Fire Precautions (Workplace) Regulation 1997
- Control of Pesticides Regulations 1986
- Food and Environmental Protection Act 1985
- The Safety Signs Regulations 1980
- The Classification, packaging and Labelling of
- Dangerous Substances Regulations 1984

The following British Standards may also apply:

- BS EN 417 Non refillable metallic gas cartridges for LPG
- BS 476
- Part 1 and 8 Fire Tests on Building Materials and Structures