

Portakabin Systems

Duplex & Ultima - Technical Specification Data

The Duplex building system offers an attractive accommodation solution for buildings of up to three storeys with unlimited floor area. It creates comfortable, contemporary workspaces with flexibility for the future.

Walls

External walls are of a durable one-piece construction with high-performance, low-maintenance plastisol steel cladding to offer protection against fire, extreme weather and accidental damage. Internally, the walls are of vinyl faced/emulsion painted gypsum wallboard, providing a wipe-clean finish.

Floor

The patented floor has a rigid galvanised steel frame and underdrawing, which offers a sturdy and robust feel and also prevents infestation. A suspended floor is completely integrated into the structure of the building. A variety of floor coverings are available, depending on the purpose of the building, including hard-wearing vinyl or carpeting.

Roof

Outstanding insulation is provided by the patented construction of the roof. The roof deck is of one-piece construction and is impact resistant. It is covered with solar-reflective, profiled plastisol steel to reduce heat gain. Internally, the ceiling is designed to prevent condensation problems. It is covered with polyester steel for a low-maintenance finish.

Doors and windows

Steel-faced doors have an insulating core that minimises heat loss. The anodised aluminium frame also incorporates a thermal break and draughtproof weather seals. The windows have double glazed, powdered-coated aluminium frames and are top hung. A thermal break prevents condensation problems and draughts are minimised by effective weather seals. Duplex buildings also offer protection against theft and vandalism, with a wide range of security options.

Building layout

The Duplex building system uses complete modules to construct buildings with unlimited floor area. Additional storeys may be added at any time (to a maximum of three) if the appropriate foundations have been laid. A variety of room layouts are achieved by the installation of partition walls.

Structural integrity

The high levels of all-round performance achieved by the Duplex building system guarantee peace of mind. It has been independently assessed by the British Board of Agreement (BBA) and was awarded a BBA certificate confirming that it has been designed to meet the requirements of The Building Regulations, The Building Standards (Scotland) and other permanent building standards and codes of practice applicable at that time.

Design loads (kN/m²)

Floor 3.00* Roof 0.75 Basic wind speed 50m/s (CP3: Chapter V: Part 5)

*DX040 modules will require an additional foundation support.

Thermal insulation

Walls, doors and roof are insulated with environmentally friendly CFC-free Envirofoam, a rigid polymer insulation material that is lightweight and yet enhances long-life structural strength and ensures an energy-efficient building.

Insulation values

U - values (W/m²K) Floor 0.28 Walls 0.43 Roof 0.38.

Fire performance

Fire-engineered construction ensures safe fire performance. Non-combustible steel is used for all external steel cladding and ceilings, minimising the potential fire load. Walls, ceilings and floor underdrawing have

Class O surfaces, roof decks have an FAA rating. Walls and combined roof and floor can have up to one-hour fire resistance.

Climate control

A variety of heating, ventilation and air-conditioning systems are provided to meet climate demands.

Foundations

Portakabin staff will provide advice on the type and size of foundations required for Duplex buildings.

Transport and handling

Duplex buildings are transported by lorry and are craned into position. Crane handling is facilitated by lifting eyes at the module corner, using a four-leg sling. Portakabin staff will provide full advice on the procedure.

For detailed technical information and the full range of Duplex building options



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Building System
Agrément Certificate
02/S030
Product Sheet 1

ULTIMA BUILDING SYSTEM

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate replaces Certificate 94/S022 and relates to the Ultima Building System, which is for use as single-, two-, three- or four-storey nonresidential accommodation other than dwellings (see section 3).

AGRÉMENT CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Strength and stability — Structural testing has been used to verify the relevant aspects of the design outside the scope of the codes, including resistance of panels to racking, fastening characteristics, interaction of components and effects of thermal cycling. See section 5.

Behaviour in relation to fire — It can be shown by tests and assessment that the buildings will meet Building Regulations' requirements for fire rating as given in section 6, Table 3.

Thermal insulation — Roofs, walls and floors, and their connecting junctions, meet the limit case U value and ACD psi (q) values specified for a 'notional' building. See section 7.

Weather-tightness and damp-proofing — The steel supporting columns raise the building clear of the ground, giving the system an inherent resistance to ground moisture. See section 11.

Durability — The steel structure has a design life of 60 years and the design life of the external envelope and internal finishes is between 25 and 60 years. See section 14.

The BBA has awarded this Agrément Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

B.C. Chamberlain

Brian Chamberlain
Head of Approvals — Engineering

G.R. Cooper

Greg Cooper
Chief Executive

Date of First issue: 14 November 2008

Originally certified on 30 November 1994

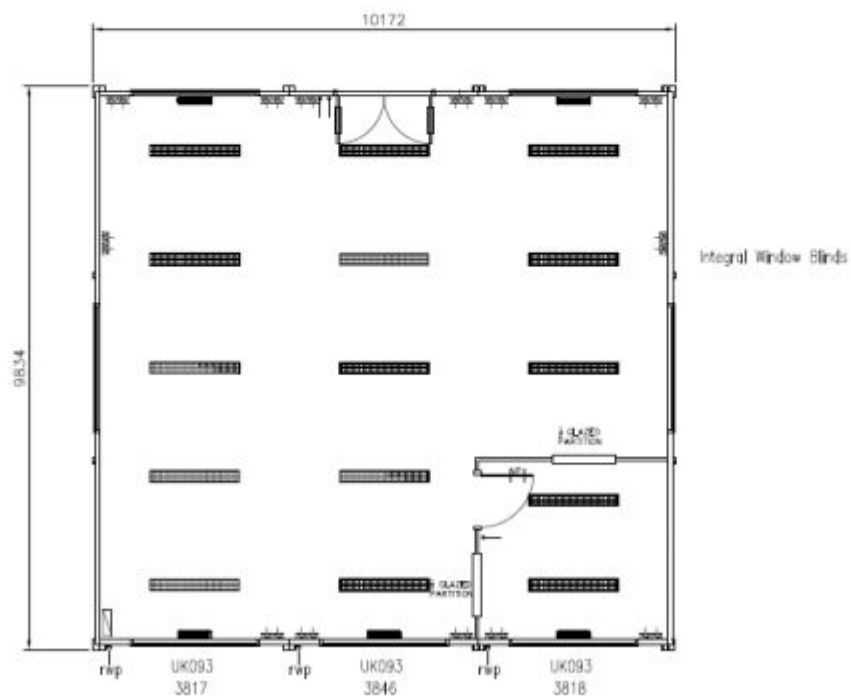
The BBA is a UKAS accredited certification body — Number 713. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbaccerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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FLOOR AREA = 93.45SQM

- Category 2 light fitting
- 1500mm single fluorescent light fitting
- 100W internal bulkhead light
- 2kW wall mounted convector heater
- 2kW high level fan heater
- 13amp single socket outlet
- 13amp double socket outlet
- Consumer unit (suggested position)

As
Installed

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A 17.12.04		As installed drawings		CMB	
Project Proposed Office Accommodation					
Client Motor Depot Ltd					
Title Plan Layout 3 x UK093 Ultima Modules		Date		Drawn	
		24.11.04		BAC	
		Scale			
		1 : 50 @ A3			
		Dwg. No.		Rev.	
		HD4010/03		A	