

## Premier Plus Product Specification

### Structural Frame

The structural steel frame of the modular building is designed by Premier Modular subcontract Structural Engineer in accordance with relevant British Standards and all design codes for structural steelwork to suit site and location conditions.

The design of the steelwork takes into account all load imposing elements with regard to dead, super and live loads.

Modules are to be finished with a permanent roof covering which is Kingspan KS1000RW 100mm core, finish in Goosewing Grey BS10-A-05.

The permanent weatherproofing of the modular building on completion of the modular building installation programme is the responsibility of Premier Modular.

Our standard internal structural ceiling height is 2.7m with an optional increased structural ceiling height of 3.1m.

### Floor Construction

Floor chassis assembly is constructed from longitudinal cold rolled main support members 305 x 89 x 19 x 3mm I.T.L.C. Z35 Galvanised G275 bright spangle. 70 x 70 x 3mm cold rolled rectangular hollow section joists are then welded between @ circa 1200mm ctrs. All heat effected areas of the chassis and elements of mild steel are painted with Zinc rich primer.

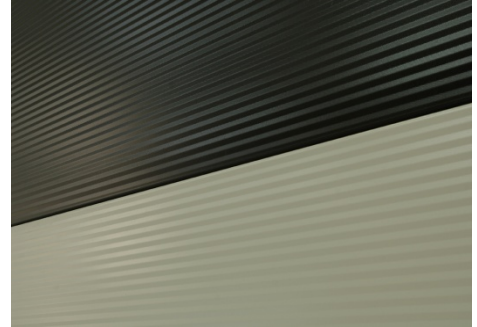


The floor is insulated with a trapezoidal composite panel over the top of the structural steel which provides continuity of insulation and eliminates cold bridges. The floor is then decked with 18mm W.B.P. plywood.

The above construction is capable of withstanding loads up to 5kN/m<sup>2</sup> to the ground floor. The construction also provides an accessible route for the installation of data, voice, and power cables (during construction only).

### External Wall Construction

Walls are constructed from rolled galvanised steel sections with vertical studs are fixed at circa 600mm centres. Externally a horizontal composite rain screen cladding is applied ensuring continuity of insulation and eliminating cold bridging. Internally a 15mm high performance gypsum board is fixed to the steel stud. This provides as a standard 60min fire protection to all elements of structure.

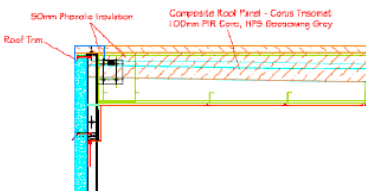


The internal lining has a vinyl paper pre-bonded to the surface at suppliers, which forms a decorated finish colour 'white', all board joints are finished with a white two-part plastic 'H' section joint trim.

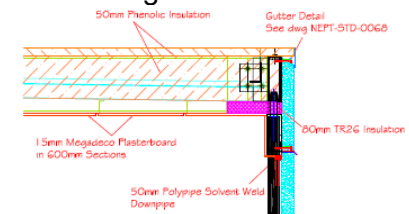
All skirting and coving are a white uPVC two-part plastic clip-on type.

The external walls are coloured Goosewing Grey BS 10-A-05.

### Roof Construction



Roof frame assembly is constructed from longitudinal cold rolled main support members 400 x 89 x 25 x 5mm I.T.L.C. Z35 Galvanised G275 bright spangle. Joists are then



welded between at circa 600mm Ctrs. Joists are cold formed channels galvanised G275. Galvanised steel angle upstands are welded to the web of every third joist to form a fall. Joists provide support for the external roof system and internal ceiling lining. A 15mm high performance gypsum board is fixed to the steel joists to provide 60min fire protection to the elements of structure.

The internal lining has a vinyl paper pre-bonded to the surface at suppliers, which forms a decorated finish, colour 'white', all board joints are finished with a white powder coated steel 'U' joint trim with a white plastic insert trim.

The roof is a proprietary manufactured insulated panel. The roof sheet is fixed in accordance with the manufacturer's standard details. Roof flashings are formed from Colourcoat HP200.

### Windows and External Doors

Windows are PVCu multicell extruded sections manufactured to BS EN. All corners mitred and fully heat welded. Opening sash top hung on tilt friction stay hinges in a fully weather-stripped frame and held closed with non-locking Cockspur handles. The windows are double-glazed, sealed units comprise of 4mm clear float – 20mm air gap – 4mm low “E” glass which achieves a “U” value of 1.6w/m<sup>2</sup>K.



Doors are constructed from powder coated aluminium and hung on bottom pivot and top concealed closure. Hinge style is fitted as a standard with anti-finger trap guards. Glazing within external doors to be G.W.P.P. safety glass. Ironmongery: - door furniture to be SAA finish to BS1615 and suitable for the application of the door.

UPVC windows, aluminium doors and double-glazed units are covered by a five-year manufacturer guarantee.

### Internal partitions

Internal partitions are formed from a proprietary partitioning system of galvanised steel channel sections with studwork at nominal 400mm centres. A 12.5mm gypsum board is fixed to the steel stud. This provides as a standard 30min fire protection and 36dB sound rating, this can be enhanced to provide 60min fire protection and 49 dB.

The internal lining has a vinyl paper pre-bonded to the surface at the suppliers, which forms a decorated finish. The panels have a white two-part plastic ‘H’ section joint trim.

All partitions are non-load bearing. Glazing panels will be fitted to the partitions upon request, glazing generally to be 6mm clear float however if it falls within a critical location as defined in approved document “N” of the building regulations then glazing will be 6.4mm laminate.

WC cubicles are from the Waco range from the Cubicle Centre Ltd. Fascias and dividers are speckled grey and doors are speckled anthracite, alternative ranges and colours can be provided upon request.

### **Internal Doors**

Internal doors are solid core. Doors are installed to meet the appropriate fire rating for their particular application to conform to approved document “B” of the Building Regulation.

Doors are hung in a softwood casing with and are fitted with intumescent and cold smoke brush seal as required. Doors will be fixed with vision panels as required to conform to approved documents “M” & “B” of the Building Regulations. Glazing within doors will generally be 180mm wide x 950mm high in order to provide a line of vision to comply with approved document “M” of the Building Regulations and will be glazed in 6.4mm G.W.P.P. safety glass. Ironmongery and door furniture to be SAA finish and suitable for the application of the door.

### **Floor Finishes**

- Either 2mm slip-resistant vinyl or caret tiles.
- Non slip vinyl: Polysafe Ash Grey ref 4540.
- Carpet tiles: Burmatex Rialto Charcoal Grey ref 2640.

## Building Services

### Electrical Installation

- 1 No Mains Distribution Unit to each floor to include all necessary circuit protection to comply to BS7671, sized to suit final design loadings.
- Additional MDU's for air conditioning/commercial kitchen etc. to be provided as required.
- All mains supply cables/power to each mains distribution unit to be provided and installed by the client.
- All installation from the mains distribution to all fittings by Premier Modular.
- Cabled using PVC T/E above false fixed ceiling then to fabric of building to suit design.
- Lighting to generally be high efficiency T5 type linear fittings switched via occupancy sensors and wall/pull switches, designed to meet CIBSE guidelines

### Plumbing Installation

- The entire installation shall conform to the appropriate British Standards for current Water Regulations, and water company requirements.
- New cold-water mains service to be installed within building by client to locations as indicated.
- All sanitaryware shall be provided with cold water services as required, including isolation valves, backflow prevention valves and connections.
- Hot water generated via electric point of use water heaters.
- All washbasins/sinks shall be provided with hot water services as necessary, including isolation valves, mixing valve and connectors. All hot water outlets shall be supplied with premixed hot water at a set temperature as required. All such valves shall be sized to provide at least the minimum flow rate within current CIBSE guidelines.
- All distribution pipework shall be copper conforming to BS2871 Table X.
- Main distribution routes shall run below ceiling.
- All pipe runs shall be arranged in a neat appearance, parallel to other pipe or service runs and the building structure (subject to gradients for draining or venting).
- All pipes passing through walls, floors and partitions shall be sleeved as required.
- All low points will be fitted with drain cocks with hose connections so as to enable draining of system.
- Hot and cold pipework in ceiling void shall be insulated to BS5422.
- The hot and cold-water system shall be designed in accordance with Health & Safety legal document ACoP L8 and CIBSE TM13 guidelines.

- All soil and waste pipe to be installed in white UPVC .

### **Drainage and Services**

- Services to the building with regards to drainage, water supplies and electricity are provided by the client to locations indicated on Premier Modular's drawings.
- Waste pipe (i.e. Soil and Vent) connections are to be by the client, waste pipes from the building are to terminate in agreed locations / positions as indicated on the drawings.
- Final commissioning and certification of water supplies will be carried out by the client.

### **Fire Alarm Installation – If Applicable**

- Standalone Addressable System to L2
- Cabled in Soft Skin Fire Resistant Red FireTuf. Installed to comply with BS5869.

### **Security Alarm Installation – If Applicable**

- Standalone Intruder Alarm.
- To cover all entry points to all floors and movement detection to Ground Floor.
- Installed to comply with BS EN 50131.

### **Air Conditioning – If Applicable**

- The air conditioning systems are inverter type split units, designed and installed in accordance with EN378.
- The models provided are a combination of units from the wall mounted range
- Each unit will have its own independent infra-red controller, ensuring they can set their own temperature.
- Fresh air intake is via openable windows and doors only.

The systems will operate between the following external temperature conditions:

Cooling Mode:	10°C to plus 30°C
Heating Mode:	-3°C to 20°C
External temperature(winter):	-3db at 100% humidity
External temperature(summer):	27°Cdb 21°Cwb
Internal temperature(winter):	20°C +- 2°C
Internal temperature (summer):	21°C +-2°C

## Technical Information

### Loading and Weight

Imposed Roof Load:	0.75kN/m <sup>2</sup>
Floor Load:	5.0kN/m <sup>2</sup> to ground floor. 3.0kN/m <sup>2</sup> to upper floors.

### Thermal Insulation – Nominal

Floor:	0.19W/m <sup>2</sup> K
Walls:	0.27W/m <sup>2</sup> K
Roof:	0.19W/m <sup>2</sup> K

### Codes and Standards

The Premier Modular building is designed to conform with the following Codes of Practice and British Standards where relevant. This is not a comprehensive list and any omission does not imply non-conformance.

BS EN 10143: 1993	Hot dipped metal coated steel.
BS EN 60529: 1992	Degrees of protection of enclosures.
BS 6399 Pt 1: 1996	Code of Practice for dead or imposed loads.
BS 5493: 1997	Code of Practice for protective coating for steel.
BS 5950 Pt 2: 1992	Specification for material fabrication and erection of hot rolled steel section.
BS 6399 Pt 2: 1997	Code of Practice for wind loads.
BS 6399 Pt 3: 1988	Code of Practice for imposed roof loads.
BS 6767 Pt 1: 1999	Design & construction of transportable buildings.
BS 6767 Pt 2: 1998	Transportable accommodation installation – transport siting.
BS 5950 Pt 5: 1998	Code of Practice for design of steel sections.
BS 7671: 2001	IEE wiring regulations.
BS 5839 Pt 1: 1988	Fire detection and alarm systems.
BS 476 Pt 3: 1975	External fire exposure roof test.
BS476 Pt 22: 1987	Methods for determination of the fire resistance of non-load bearing elements of construction.
Part 13	Fire Prevention on Construction Sites. Eighth Edition May 2012