

Modular Turnkey Buildings



G3systems

- Temporary building with at least a 10 year life
- Units 'off the shelf' for immediate delivery worldwide
- Standard ISO sizes or configurable
- Internal walls removeable to provide large open plan areas
- Pitched roof for more permanent facilities
- All erections, groundworks and in service management provided by G3 Systems and IAP Worldwide Services including:
 - Groundworks
 - Camps management
 - Security
 - Power provision
 - Water purification
 - Catering
 - Food supply
 - Waste management
 - Sewerage disposal
 - Recreation facility





Specification

MODULAR TURNKEY BUILDINGS

G3 Systems specialises in the manufacture, supply and erection of fully furnished, customised building complexes. The modules are constructed from either adapted ISO containers or pre-fabricated container sized units. The buildings can be provided in their basic form, or clad and fitted with a pitched roof to meet environmental requirements or fit in with existing building infrastructure.

TYPICAL BUILDING SPECIFICATION (PRE-FABRICATED)

The standard temporary building is designed to be the same configuration as an ISO container and can be transported fully erected using the same handling equipment or flat packed to reduce transport volume.

The flat-pack units (in Transpacks® 660 mm high) are supplied with completely pre-assembled floor (with PVC floor covering adhered to the upper surface) and ceiling (with all electrical installations built in such as electrical distribution, lamps, cables etc). During transport a steel non-slip insert is placed between each ISO corner to secure containers from sliding. The construction of the transpack® is solid enough to enable transport and handling by fork lift, 4 units at a time.

The container is designed as a light construction consisting of floor and roof frames and corner profiles. The construction enables compounding of individual containers in longitudinal and transverse directions without limits. It also enables compounding of containers up to 4 floors in height (ground floor + 3 floors). The wainscots of the container are made of light insulation panels and offer good environmental and thermal performance. All materials and manufacturing techniques are environmentally friendly. The container's effective life span is ten (10) years minimum under harsh field conditions. It is capable of sustaining at least three (3) assemblies and three (3) disassemblies during its life span allowing the system to be broken down into flat packs and relocated.

TYPICAL SPECIFICATIONS

Dimensions: ISO Container sizes or built to suit

Steel Framework

Material: Cold formed steel profiles in a thickness of 2 to 5 mm, steel quality St 37-2 (DIN 17100) with a plasticity limit of 240 Mpa
Fittings: 8 corner pieces (dimensions according to ISO standard 1161), rainwater pipe in the roof framework; forklift pockets of dimensions 84x350 mm at a distance of 2050mm.

Floor

Composition:

- External wainscot : flat galvanised (275g/m², DIN 55928) steel sheet metal in a thickness of 0.5 mm, FE P02 quality (DIN 10142)
- Insulation filling : mineral wool in a thickness of 150 mm (DIN 18165/1:Ww, DIN 4102/A1) among steel transverse supports
- Condensation barrier : PE foil in a thickness of 80 m
- Waterproof chipboard in a thickness of 20 mm, V 100 quality (DIN 68763), E1
- Glued final PVC floor covering in a thickness of 1.5 mm (DIN 16591, DIN 4102/B1), with welded connections

Permitted loading: 2.00 KN/m² - Coefficient of thermal conductivity: k = 0.21 W/m²K

Ceiling

Composition:

- External wainscot : flat galvanised (145g/m², DIN 55928) and painted (29 m, DIN 55928/8) steel sheet metal in a thickness of 0.5mm, in FE P02 quality (DIN 10142), fitted to be slightly convex
- Insulation filling : mineral wool in a thickness of 100mm (DIN 18165/1:Ww, DIN 4102/A1) among wooden transverse supports
- Facade panel of type FTVGS-60, in-built width 1000mm, total thickness 60mm

Permitted loading: 1.00 KN/m² - Coefficient of thermal conductivity: k = 0.24 W/m²K

Doors

External doors: Steel T 30, single fold, filled doors, insulated with mineral wool 40 mm; doors are equipped with 3 hinges.

Internal doors: Two (2) steel, single fold, insulated with polyurethane 40 mm; doors are equipped with 3 hinges.

Windows

Windows as required are made of PVC, at least double glazed with fixed security glass.

The windows meet the requirements of Building Regulations N.

Coefficient of thermal conductivity: k = 1.1 W/m²K - Sound reduction rate: 30 dB

RAPID DELIVERY

G3 Systems retain a stock of pre-fabricated buildings enabling the rapid delivery and erection world wide. For instance we recently delivered a 60 office and accommodation facility to Kabul, Afghanistan including all ground works and infrastructure in less than 6 weeks and a similar facility to Baghdad in less than four weeks.

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