

TECHNICAL SPECIFICATION – ARK 600 & 900 Series

1 DIMENSIONS

The portable flat pack containers are available in customizable floor plans;

Container Type	External dimensions (mm)			Internal dimensions - <i>without partition walls</i> (mm)		
	Length	Width	Height	Length	Width	Height
1) ARK 600 series	6000	2400	2600	5810	2210	2300
2) ARK 900 series	9000	2400	2600	8810	2210	2300

The above given dimensions are valid for standard container configurations.

2 DESIGN AND MATERIALS

2.1 DESIGN LOADS

Description	Value
Snow Load	95 kg/m ²
Wind Speed and Load	102 km/h & 50 kg/m ²
Live Load for Floor Frame	200 kg/m ²

2.2 STRUCTURAL FRAME

Floor frame, corner posts and roof frame are made of cold formed steel profiles as below:

Structural Component	Material
1 - FLOOR FRAME	Made of cold rolled, welded steel profiles. Four places of the floor frame at each corner are welded.
a) <i>Longitudinal floor frame</i>	3.0mm thick cold formed steel profile.
b) <i>Short edge floor frame</i>	2.0mm thick cold formed steel profile.
c) <i>Cross beams</i>	1.0 mm thick galvanized cold-formed metal sections
2 - CORNER POSTS	Made of cold-rolled, welded 3.0 mm thick steel profiles and bolted to the floor and roof frames. Bolts : M12
3 - ROOF FRAME	Made of cold rolled, welded steel profiles. Four places of the roof frame at each corner are welded.
a) <i>Longitudinal floor frame</i>	3.0mm thick cold formed steel profile.
b) <i>Short edge floor frame</i>	2.0mm thick cold formed steel profile.
c) <i>Cross beams</i>	1.0 mm thick galvanized cold-formed metal sections.

2.3 FLOOR & ROOF COVERINGS and INSULATIONS

Description	Material
1 - FLOOR	
a) <i>Under sheeting</i>	0.50 mm thick 27/200 formed trapezoidal galvanized steel sheet
b) <i>Decking</i>	18mm thick chipboard / 16mm cement board (dry / wet spaces)
c) <i>Covering</i>	2.4mm thick PVC
2 - ROOF	
a) <i>Ceiling</i>	8 mm thick PVC wainscot
b) <i>Thermal insulation</i>	80 mm thick mineral wool, (12-14 kg/m ³ density)
c) <i>Roof cover (top)</i>	0.50 mm thick 27/200 formed trapezoidal galvanized steel sheet

2.4 EXTERNAL / PARTITION WALL PANELS

Description	Material
1 - EXTERNAL WALL PANELS	
a) <i>Exterior cladding of External Walls</i>	0.50mm thick galvanized RAL 9002 polyester based painted steel sheet
b) <i>Interior cladding of External Walls</i>	0.40mm thick galvanized RAL 9002 polyester based painted steel sheet
c) <i>Panel wall thickness and sizes</i>	60 mm thick, 1000 x 2350 mm sizes
d) <i>Thermal insulation</i>	Expandable polystyrene (EPS), Thermal Transmittance [(λ) Value]: 0.036 W/mK , Fire Class: E
2 - PARTITION WALLS (if any)	
a) <i>Cladding</i>	0.40 mm thick galvanized RAL 9002 polyester based painted steel sheet on both sides
b) <i>Panel wall thickness and sizes</i>	60 mm thick, 1000 x 2350 mm sizes
c) <i>Thermal insulation</i>	Expandable polystyrene (EPS), Thermal Transmittance [(λ) Value]: 0.036 W/mK , Fire Class: E

2.5 DOORS & WINDOWS

Description	Material
1 - EXTERIOR DOOR	
a) <i>Door Frame</i>	60 mm width, 1.20mm steel sheet, electrostatic powder coated RAL 9002.
b) <i>Dimensions</i>	850 x 1900 mm
c) <i>Door leaf</i>	1mm thick, RAL 9002 electrostatic powder coated steel sheet cladded on both faces, total door leaf thickness 50 mm
d) <i>Thermal insulation</i>	Glass wool (12-14 kg/m ³) 50 mm thick
e) <i>Door accessories</i>	Barrel lock, 3 nos hinges, weather-strip gasket. Metal door handle.

2 - INTERIOR DOORS (if any)	
a) Door Frame	60 mm width, 1.20mm thick steel sheet, electrostatic powder coated RAL 9002.
b) Dimensions	800 x 2000 mm (WC doors 740 x 2000 mm)
c) Door leaf	44 mm thick, honeycomb kraft infilled
d) Door accessories	Barrel lock, 3 nos hinges with metal handle
3 - WINDOWS	
a) Frame	CRP reinforced uPVC window frame
b) Glazing	Double glazed insulating glasses, [4mm glass + 9mm Air Space + 4 mm glass] combination) (Frosted glazing for wc)
c) Dimensions	1000 x 1000 mm (WC windows 600 x 400 mm)s

2.6 ELECTRICAL INSTALLATIONS

The electrical installations are surface mounted. All cables running through above the ceiling. Cables from ceiling down to the switches and socket outlets will be installed within PVC cable channel mounted on the surface

Description	Material
a) Cables	<i>NYM cables – (300 V/500 V) will be used in power outlets, lighting fixtures and A/C cabling. 3x2.5 mm² NYM cables (300 V/500 V) for power outlets, 3x1.5 mm² NYM cables for lighting fixtures wiring.</i>
b) Lighting Fixtures	<i>2x18-36W/4x18W for interior lighting. IP44 Waterproof 40W wall mounted exterior lighting fixture.</i>
c) Switches and power outlets	<i>Power outlets (1x16 A)</i>
d) Distribution board	<i>Wall-mounted type electrical distribution board - 230 V / 400 V & 50 Hz. All boards will have 4 pole 300 mA earth current leakage relays for protection.</i>
e) Circuit Breakers (MCB)	<i>Lighting outputs: 1x10 A- B type, Socket outputs : 1x16 A- B type</i>

2.7 PLUMBING INSTALLATIONS

The plumbing pipes are surface mounted.

Description	Material
a) Wastewater pipes	PVC
b) Potable water pipes	PPRC
c) Floor drain	PVC