

SPECIFICATION FOR PREFABRICATED LIGHT BUILDING

External Walls 10 cm Composite HEKİM PANEL (Sheet Metal+EPS+Fibercement)
Internal Walls 6 cm Composite PRESS PANEL (Fibercement+EPS+Fibercement)

INTRODUCTION: Prefabricated light buildings can be applied to all kinds of layout plan required in such a way that their widths and lengths will be multiples of 125 cm depending on their intended use. Panel used measures 1250mm by 2500 mm. Prefabricated light buildings are designed so as to be capable of more than one assembling and disassembling. All architectural planning, design and technical drawings are carried out with ARCHICAD 9 TR, STRUCAD (Structural Steel Detailing System Versiyon-16), STA4CAD, ÇELİKPROIV and AutoCAD programs, and engineering calculations are performed with SAP 2000 and CFS programs by our technical personnel. All materials used have TSE certification.

TECHNICAL DATA	Snow load	80 kg/m ² TS 498
	Wind speed	102 km/Hour (50 Kg/ m ²) TS 498
	External wall thermal conductivity	K: 0,34kcal/m2hC (K: 0,39W/M2K)
	Internal wall thermal conductivity	K: 0,59 Kcal/m ² hC (K: 0,68 W/m ² K)
	Roof thermal conductivity	K: 0.39 Kcal/m ² hC (K: 0,45 W/m ² K)
	Earthquake zone	Effective ground acceleration coefficient: Ao=0,40 (1.degree earthquake zone)
		Structural importance coefficient (I =1)
		Live load participation factor (n = 0,3)
		According to intended use and type of building I =1 / 1,2 / 1,4 / 1,5 ,
		Calculated as n = 0,3 / 0,6
	APPLICABLE STANDARDS	DESIGN & STRUCTURAL: TS EN 1993-1-1, 1-2, 1-8+AC, (EUROCODE 3), TS 11372, TS 498 , TS 648, TS 6793, TS EN 1991-1-1-3, 1-1-4 (EUROCODE 1), TS EN 1998-1 (EUROCODE 8), IMO-01.R-01/2005, Specification for Buildings to be Built in Seismic Zones – 2007
		Material: DX51D+Z (~St 37) no.1311, S250GD+Z no.1325, S320GD+Z grade no.1332, S350GD+Z (~St 52) grade no.1335, standard DIN EN 10346-00, structural steel galvanized by zinc coating.
		Production; Galvanized cold-formed trusses, purlins and H-section steel profile columns manufactured in the roll forming line.
		Fasteners: Two panels are joined by fitting them into H-section steel columns, and such H profile is joined with roof trusses using zinc-plated bolts & nuts. DIN 960-961, DIN 935-F, 8.8.
		Thermal Insulation : TS 825, Thermal insulation requirements for buildings (8.05.2000)
		Acoustic insulation : TS 187 and TS 854 (DIN 4109)
		Fire resistance: TS 1263, DIN 4102, TS EN 13501-1, Fire classification of construction products and building elements - 2002
	Climate zone	Wall insulation is suitable for 4th climate zone (K:0,40 W/m ² K).

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		Roof insulation is suitable for ~ 2 nd climate zone (K:0,40 W/m ² K).
FOUNDATION	Concrete will be applied in accordance with the concrete layout plan (foundation dimensions) delivered by ÖZGE YAPI A.Ş. Foundation design, structural calculations and covering of foundation and floor will be carried out by the EMPLOYER . Building will be anchored to the foundation floor with steel anchor bolts and dowels. Reinforced spread foundation or mesh-reinforced foundation must be prepared over compacted soil.	
EXTERNAL WALLS	Exterior panel height	2500 mm
	External wall dimensions/ thickness	1250x2500x100 mm
	Exterior surface	0,45 mm thick S-type galvanized sheet steel where, with the aid of coil coating method, exterior surface is coated with 20 micron polyester paint over 5-7 micron primer and interior surface is coated with 5-7 micron primer (For S-type pitch, see: http://www.hekimpanel.com/wp-content/uploads/sac-deseni.jpg)
	Interior surface	8 mm fibercement flat board – Class A1 (fireproof)
	Insulation	~ 92 mm thick polystyrene foam (EPS)-, fire class B1
INTERNAL WALLS	Interior panel height	2500 mm
	Internal wall dimensions/ thickness	1250x2500x60 mm
	Surfaces	8 mm fibercement flat board – HEKİMBORD Class A1 (fireproof)
	Insulation	~ 44 mm thick polystyrene foam (EPS)-, fire class B1
CEILING COVERING	Entire space	6 mm fibercement board – Brand, Class A1 (Fireproof) or painted plaster board”
	Insulation	80 mm glass wool blanket
ROOF	Covering	0,45 mm thick unpainted galvanized sheet steel with 27 x 200 mm pitch depth/red Onduline for residential buildings <u>Black sponge is used under eaves and ridge for isolation.</u>
	Purlin	Angle omega-section (80x50x0,9 mm) profile cold formed from galvanized rolled sheet steel in the roll forming line. (wooden purlins are employed for the roofs to be covered with Onduline®)
	Truss	Located at an interval of 125 cm , steel truss designed specially with exterior and interior profiles and manufactured from high standard galvanized rolled sheet steel (thickness of sheet steel changes between 0,8-2 mm according to structural calculations and construction requirements) 150x300 mm PVC louver on the face of exterior trusses for ventilation.
	Eaves	20 cm PVC eaves. 150x150 mm PVC louver at eaves to avoid bleeding.
	Gutter and downspouts	EXCLUDED
LOAD-BEARING SYSTEM	Composed of H-section columns manufactured from (galvanized sheet steel) and roof trusses from high standard galvanized roll sheet steel in the roll forming line. It is also possible to use by modifying wall thickness and width of profiles or with industrial profiles and DKP/Galvanized column-beam reinforcement and welding/screw/bolt as a result of structural calculations, when required.	
WALL JOINTS	Galvanized sheet steel H-profiles manufactured in the roll forming line are bolted to trusses or frames. Exterior face of H profiles employed for joining external walls is covered with PVC sheath.	



CEILING JOINTS	6 mm fibercement ceiling material is joined using such joining elements as galvanized sheet steel and PVC omega profile, PVC sheath and painted aluminum T-profile. (in order to avoid corrosion and bleeding)		
ACCESSORIES	Edge omega, omega over panel, face edge coating material, face coating material, window rough bucks, coating material located under the eaves are made of PVC (in order to avoid corrosion and bleeding).		
	NOTE: Edge omega, omega over panel, window rough bucks, and face sheet can be metal according to building construction.		
DOOR JOINERY	Exterior door:	External dimensions 845/1960 mm steel door (Both sides with chipboard, EPS filler inside 0,50 mm thick prepainted RAL9002 galvanized sheet steel film coated with COIL COATING system.)	
	Interior door:	External dimensions 840/1960 mm laminated MDF panel door, (wooden carcass, kraft filler) leaf thickness : 42 mm	
	Wet area door	External dimensions 720/1960 mm laminated MDF panel door, (wooden carcass, kraft filler) leaf thickness: 42 mm	
	Door lock and handle	Exterior and interior door locks are cylindrical (interior door locks of housing are mortise locks) (ITO or KALE brand), door handles are brass or grey metal.	
WINDOW JOINERY	Window (PVC frame)	1205/1000 mm PVC handle	
	Transom window (PVC frame)	1205/500 mm PVC handle	
GLASS	Double glazed	4+9+4 mm –	
PAINT	Exterior surfaces	0,45 mm thick prepainted galvanized sheet steel with COIL COATING system. RAL 9002	
	Interior surfaces and ceiling	2 layers of plastic based indoor paint-	
	Other	No primer is required for galvanized cold formed truss, purlin and H profile since weldless technology is used.	
	Non-galvanized metal components	1 layer Rapid primer+ exterior surfaces 2 layers of oil paint -	
ELECTRIC WIRING Surface mounted	Cable	(NYM ,220 Volt , 50 Hz.),	
		PVC cable conduit (16 mmx25 mm) water-resistant cable inside,	
		Socket outlets 3X2.5 mm² NYM, socket lines 4X2.5 mm² NYM cable	
		Lighting outlets 2X1.5 mm² NYM, lines 3X1,5 mm² NYM cable ,	
	Lighting fixtures	Normal area	Circular fluorescent (for housing) , 2*36 W -1*36 W- 2*18 W - 1*18 W- Fluorescent TMS Fixture, Fluorescent lamps
		Wet area	Glop –IP 44,
		Above exterior door	
	Sockets, switches	Damp places	
	Fuse, fuse boxes	Automatic fuses	
		PVC Fuse boxes	
	Power panel, Weak current installations (Telephone, TV, data), Mainline connections:	Will be provided by the Employer company.	
SANITARY PIPING	Sanitary wares/mixer taps	Wash basins	40x50 cm wall-hung type,

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Surface mounted		Wash basin and shower taps	Taps are mounted on the wall in cold water installed wash basins, and taps are mounted to the wash basin in hot water installed wash basins
		Toilet	Toilet with plastic cistern (European WC) Squat toilet (bidet nozzles)
		Shower tray	80 cmx80 cm Acrylic,
		Kitchen sink	50/100 cm sink is made from chrome material, double cabinet from melamine coated chipboard at the bottom. Upper cabinet is not available. 100 cm kitchen sink cabinet.
	Pipes	Fresh water	PPRC -
		Sewage water	PVC -
OTHER	Foundation floor must be prepared according to the concrete layout plan provided by Özge Yapı A.Ş. EMPLOYER company shall assume the full responsibility in case it fails to observe the explanations in the concrete layout plan provided by Özge Yapı A.Ş.		

ÖZGE YAPI SAN ve TİC. AŞ. RESERVES ITS RIGHT TO MAKE CHANGES IN ALL TECHNICAL DETAILS THEREOF.

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