



## SPECIFICATIONS GUIDE FOR RESIDENTIAL UNITS CONSTRUCTED USING THE "CHATZISTAVROS PREFAB" SYSTEM

The residences of "Chatzistavros Prefabricated" are constructed with a wooden frame structure that is fully earthquake-resistant, highly compact, and waterproof on the exterior, providing optimal thermal insulation and soundproofing conditions.

### Construction of External Wall with Thermal Insulation

"Chatzistavros Prefabricated" has developed the following external wall structure (from outside to inside):

- Elastic, colored, breathable acrylic plaster (color selection according to the customer's preference).
- Base layer of cementitious, elastomeric, reinforcing plaster with fiberglass and organic additives, reinforced with a fiberglass mesh.
- Thermal insulation of expanded graphite polystyrene (EPS) 80mm with  $\lambda = 0.032 \text{ W/mK}$ , installed with mechanical fastening.
- Oriented Strand Board (OSB) panels of 11mm.
- Wooden frame construction of 50×100mm at 600mm intervals for single-story residences.
- Wooden frame construction of 50×150mm at 600mm intervals for two-story residences.
- Mineral wool insulation of 100mm with  $\lambda = 0.040 \text{ W/mK}$ .
- Polyethylene membrane as a 0.2mm vapor barrier.
- Knauf plasterboard of 12.5mm (moisture-resistant plasterboard of 12.5mm for the interior of bathrooms).
- Specifications:
  - Total thickness: 245mm for two-story residences, 185mm for single-story residences.
  - Average weight: 34.5kg/m<sup>2</sup>.
  - Soundproofing: 42 dB.
  - Thermal transmittance coefficient (U-value):  $K = 0.24 \text{ W/m}^2\text{K}$ .
  - Fire resistance.



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## Construction of Interior Walls with Wood Cladding

Chatzistavros Prefabricated" has developed the following structure for interior walls (from outside to inside):

- Whitewood tongue-and-groove cladding, 14×90mm.
- Breathable waterproofing membrane.
- Oriented Strand Board (OSB), 11mm.
- Wooden frame construction of 50×100mm at 600mm intervals for single-story residences.
- Wooden frame construction of 50×150mm at 600mm intervals for two-story residences.
- Mineral wool insulation, 100mm with  $\lambda=0.040$  W/mK.
- Polyethylene membrane as a 0.2mm vapor barrier.
- Knauf plasterboard, 12.5mm (moisture-resistant plasterboard of 12.5mm for the interior side of bathrooms).
- Specifications:
  - Total thickness: 245mm for two-story residences, 185mm for single-story residences.
  - Average weight: 38.6kg/m<sup>2</sup> for two-story residences, 36.7kg/m<sup>2</sup> for single-story residences.
  - Fire resistance: REI30.

## Intermediate Floor Between Levels & Attic

The intermediate floor between levels is designed as follows (from bottom to top):

- Knauf plasterboard, 12.5mm.
- Polyethylene membrane, 0.2mm vapor barrier.
- Wooden lath for plasterboard installation, 15×70mm.
- Floor-supporting wooden beams, 80×200mm.
- Mineral wool insulation, 50mm between beams.
- Mineral wool insulation, 100mm (only below non-walkable attic areas).
- OSB panels, 15mm.
- Polyethylene membrane, 0.2mm vapor barrier.
- Dry construction filling, consisting of wooden battens and 15mm OSB.
- Specifications:
  - Total thickness: 360mm (including floor filling).
  - Soundproofing: Rw 42dB.
  - Fire resistance: REI30.
  - Average weight: 40.8kg/m<sup>2</sup>.



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## Roof Construction

The roof construction model consists of the following components:

- All roofs are designed to provide maximum weather protection and ensure aesthetic appeal.
- All visible (exposed) roof elements are made of planed wood, treated with protective coatings.
- Maximum snow load capacity: 100kg/m<sup>2</sup>.

Roof Construction Types (from inside to outside):

- Moisture-resistant Knauf plasterboard, 12.5mm (only for roofs above walkable attics or floors).
- Polyethylene vapor barrier membrane, 0.2mm (only for roofs above walkable attics or floors).
- Wooden lath for plasterboard installation, 15×70mm (only for roofs above walkable attics or floors).
- Wooden roof beams, 40×200mm for open roofs (visible from below).
- Wooden trusses made of 50×150mm timber connected with metal plates for closed roofs (not visible from below).
- Mineral wool insulation, 100mm (only for roofs above walkable attics or floors).
- OSB panels, 15mm.
- Common asphalt waterproofing membrane.
- Asphalt shingles in a color of the customer's choice.
- Specifications:
  - Total thickness: 250mm.
  - Average weight: 40.8kg/m<sup>2</sup>.
  - Soundproofing: 42dB.
  - Thermal transmittance coefficient (U-value): K=0.37W/m<sup>2</sup>K.
  - Fire resistance: REI30.



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## Roof Construction

### Non-Walkable Flat Roof

The horizontal roof (terrace) is designed as follows (from bottom to top):

- Moisture-resistant Knauf plasterboard, 12.5mm.
- Wooden lath for plasterboard installation, 15×70mm.
- Polyethylene vapor barrier membrane, 0.2mm.
- Wooden floor-supporting beams, 200mm.
- Mineral wool insulation, 100mm between beams.
- OSB panels, 15mm.
- Polyethylene vapor barrier membrane, 0.2mm.
- Shaped expanded polystyrene (EPS), 30–100mm for slopes up to 2%.
- Waterproofing membrane made of FPO Sarnafil TG66-15, 1.5mm thick (by SIKA).
- Specifications:
- Minimum total thickness: 332mm.
- Average weight: 51.7kg/m<sup>2</sup>.
- Soundproofing: 42dB.
- Thermal transmittance coefficient (U-value):  $K=0.34W/m^2K$ .
- Fire resistance: REI30.

## Windows and Balcony Doors

- Material: White aluminum with thermal break.
- Designed for tilt-and-turn opening (in double windows, only one sash can tilt).
- Double glazing with low-emissivity (low-e) film and argon gas.
- Thermal transmittance coefficients:
- Glass:  $U_g=1.0W/m^2K$ .
- Frame:  $U_f=1.1W/m^2K$ .
- Handles: Metallic, white with electrostatic paint.
- Exterior sills: Off-white marble.
- Exclusions: Tilt mechanisms for both sashes and electric shutters are not included.

## External Entrance Doors

- Type: Single, unified security door (no side panels).
- Hinges: Adjustable.
- Features: Security lock, handles, panoramic peephole (180°).
- External cladding: White aluminum.



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## Electrical Installation

All electrical installations comply with Greek laws and standards. The placement of lights, switches, and sockets is determined by the customer's preferences.

### Cables Used by Application:

- Lighting and general use: 3×1.5mm (NYL & NYA).
- Heavy-duty appliances: 3×2.5mm, 3×6mm, 5×10+1.5mm (NYL & NYY).
- Telecommunications and media: UTP Cat6 and TV cables.
- Main Features:
  - Main electrical panel: Single-phase by HAGER or equivalent, with circuit breakers and a residual current device (RCD).
  - Subpanel: Installed for additional floors.
  - Electrical components: SNAIDER (fuses, switches, RCDs).
  - Switches and sockets: LEGRAND (Valena series, Neutral white or Classic cream).
  - Wiring connections: All within junction boxes, accessible for repairs or modifications

### Electrical Network Overview:

#### Entrance

- Line for external light (3×1.5).
- Line for internal light (3×1.5).
- Simple switches for internal and external lights (3×1.5).

#### W.C.

- Simple switch with one light line (3×1.5).
- Socket near the mirror (3×2.5).

#### Bathroom

- Simple switch with one light line (3×1.5).
- Socket near the mirror (3×2.5).

#### Storage Room

- Simple switch with one light line (3×1.5).

#### Hallway

- Simple switch with one light line (3×1.5).
- One socket (3×1.5).

#### Kitchen

- Simple switch with one light line (3×1.5).
- Power line for the oven (3×6).
- Socket/power line for the dishwasher (3×2.5).
- Line with 2 sockets for other appliances (3×2.5).

#### Living/Dining Room:

- Simple switch with one light line (3×1.5).
- Line with 2 sockets (3×1.5).

#### Bedrooms:

- Simple switch with one light line.
- Line with 2 sockets (3×1.5).

#### Balcony:

- Simple switch with one light line (3×1.5).

#### Staircase:

- Simple switch with one light line.



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### Hydraulic Installation

- Hot and Cold Water Supply Pipes: Φ20 thermal welding pipes by INTERPLUST.
  - Sanitary Drains: Φ40 and Φ57 SPIRALSOLIDRAIN pipes.
  - Main Drains: Φ100 and Φ63 FASOPLAST (6atm) pipes.
- Included Residential Hydraulic Installations:
- Kitchen: Includes hot and cold water supply, sink drainage, and dishwasher drainage.
  - Bathroom: Includes hot and cold water supply, toilet, sink, bathtub, and washing machine drainage\*.
  - Basic WC: Includes hot and cold water supply, toilet, and sink drainage.
  - WC with Shower: Includes hot and cold water supply, toilet, sink, and shower drainage.
  - Balcony: Includes one cold water supply.
- Important Notes: All included drains and supplies are limited to the interior of the residence and extend to the top side of the foundation slab or basement slab. Connections to external networks, septic tanks, and hydraulic works outside the building's perimeter are not included.

*\*One washing machine drain per residence.*

### Sanitary Ware

A **voucher worth €550** is provided for sanitary ware purchases from a specific store, and up to €15/m<sup>2</sup> is included for bathroom tiles.

#### Included Items:

- 1 countertop sink with a column.
- 1 sink faucet.
- 1 toilet with a cistern.
- 1 bathroom set.
- Built shower area.
- 1 shower faucet.
- Bathroom tiles.

#### Not Included:

- Bathtub, mirror, bathroom furniture, glass enclosures, shower cabins.



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### Tile Installations

#### Wall Tiles (Bathrooms – Kitchen):

- Maximum tile height from the floor in bathrooms and WCs: 2.10m.
- Maximum kitchen tile area: 4m<sup>2</sup>.\*
- Maximum tile price: €15.00/m<sup>2</sup>.
- Tile placement is calculated in alignment with walls and for tiles up to 40x40 cm.
- Diagonal placement, woven patterns, parquet patterns, border designs, mosaic tiles, listels, trims, corner miters, or tiles larger than 40x40 cm incur additional costs.
- Wall coverings less than 0.60m wide are calculated per linear meter at 60% of the m<sup>2</sup> price.

\* offers are calculated based on the maximum area, not the specific layout.

#### Floor Tiles (Kitchen, Living Room, Entrance, Ground Floor Corridor, Storage):

- Maximum tile price: €15.00/m<sup>2</sup> + VAT.
- Skirting boards are included.
- Tile placement is calculated parallel to walls and for tiles up to 40x40 cm.
- Diagonal placement, parquet patterns, border designs, or mosaics incur additional costs.

\* offers are calculated based on the maximum area, not the specific layout.

### Synthetic Parquet Flooring (Laminate)

Laminate by Dedron for bedrooms, corridors, and first-floor hallways:

- Thickness: 7–8 mm.
- Series: Basic, Smart, Dynamic.
- Underlay: 3 mm foam polyethylene.
- Skirting boards are included.



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### Painting and Decoration

- Interior Walls: Eco-friendly plastic paint in one color of the owner's choice.
- Exterior Walls: Colored elastic acrylic plaster in one shade of the customer's choice.

### Interior Doors

- Type: Swing doors with laminate finish, plain design, convex or flat three-layer casing, marine-grade plywood, frame with rubber seal, double-barrel inox hinges, and inox handle by Coverdoors or Eurodoor.

Note: All offers are calculated for swing doors. Sliding doors are available at extra cost.

### Kitchen Cabinets

Not Included.





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### Bedroom Wardrobes\*

Not Included.

### Stairs

Floor-to-Attic Stairs (if applicable):

- Suspended staircase with a central metal frame and wooden steps.
- Interior railing with straight metal bars and a wooden handrail.
- Wooden parts are made of solid beechwood, polished and coated with two layers of waterproof, non-toxic varnish.
- Metal parts are oven-baked with special epoxy paints.

Color Options:

- Metal Parts: Silver–Gray.
- Wooden Parts: Walnut–Natural.

### Heating

If the customer chooses to install a fireplace, its purchase, installation, and maintenance are solely the customer’s responsibility, as well as the arrangement with their chosen company.

Chatzistavros Prefab assumes no liability for heating systems/fireplaces inside the residences.

### Notes

Chatzistavros Prefab reserves the right to replace materials, brands, and construction methods with equivalent alternatives without prior notice. All construction applies to the residence interior above the foundation or basement slab.