

## QUALITY REPORT

### STRUCTURAL AND FOUNDATION SYSTEM



**KAPPAX**

Our system for building detached houses is linked to a more efficient, green and sustainable construction. It is ideal for the production of bioclimatic houses, due to its high thermal isolation and consequently improved rating energy.

It is a reinforced concrete structure, based on a set of structural panels made of undulated expanded polystyrene with a basic framework attached to their faces, which are made of high-strength steel meshes and reinforced bars, linked together by electro-steel connectors that are conformed in works by applying micro-concrete through pneumatic drive devices.

These are monolithic constructions, which means they are earthquake-resistant and also fireproof. This is a wet joint system, as the union between the different elements that comprise the system is continuous. There is therefore no kind of horizontal or vertical joints once the concrete is projected.

Thus the panels form the structural elements of vertical and horizontal enclosure of housing. Its structural function is calculated according to the Structural Concrete Instruction EHE and other active binding rules in Spain.

The foundation consists of reinforced concrete struts and reticular ventilated suspended floor, which prevents from moisture and condensation on the floor of the house.

### COVERS



We distinguish between two types of covers depending on the type of housing: the pitched roof and flat roof, differing from each other by their degree of inclination and its construction method and different finish. Pitched roofs are mixed tiled (model to choose by customer) and flat roofs are waterproofed with double asphalt roofing felt and finished with outdoor pavements for passable covers or with gravel for not passable covers.

## **EXTERIOR WALLS**

Front cladding wall comprising a 10 cm thick panel of polystyrene foam with a density of 15 Kg/m<sup>3</sup> and two sides with 3 cm thick H-25 projecting micro-concrete for a total thickness of 16 cm. Compared to a traditional system, energy savings using this type of closure is about 40% for both heating and cooling cycles.

## **INTERIOR WALLS**

Internal partition wall comprises a panel composed of a 4 cm thick expanded polystyrene with a density of 15 Kg/m<sup>3</sup> and two sides with 3 cm thick projection of micro-concrete with a total thickness of 10 cm

## **COATINGS**



In-house walls coating by applying projected plaster, smooth finish with a final layer of decorative plastic paint. Colour to be chosen by the customer, except for kitchen and bathrooms, according to the technical project.

Plasterboard continuous false ceiling in bathrooms and kitchen, and where necessary to ease the transition of facilities, according to the technical project. Plaster mouldings as models.

Façade cladding walls plastered with waterproof monolayer mortar, as chosen by the customer, both the colour and the texture of it.

## **FLOORING AND TILES**



Premium porcelain ceramic tile flooring, to be chosen by the customer between different models. Porcelain antislip decking outside.

Kitchen and bathroom walls with top quality ceramic tiles, to be chosen by the customer.

## EXTERIOR CARPENTRY



Premium exterior carpentry in lacquered aluminium **with thermal break** ( colors choices), sliding or folding doors, as selected models, with tilt mechanisms in bathrooms and kitchen. Double glazing with Climalit like intermediate air chamber. Rolling aluminium blinds with injected polyurethane inside.

Optional motorized blinds.

Reinforced house access door, antilever hinged bolting, security lock and wide angle optical peephole.

Pedestrian plot gateway and motorized vehicle access door, all lacquered as color choice.

## INTERIOR CARPENTRY



All interior woodwork, doors and cabinet fronts, are solid wood board veneered in vaporized beech or lacquered white. More than 5 different series to be chosen. Stainless steel cranks and latches in bathrooms. The cupboards are compact, modular, inside panelled, in the same style as the rest of the apartment doors, including luggage shelf and hanging rail.

## KITCHENS

Kitchen custom made cupboard modules comprising high hanging cabinets and low base cabinets with doors and drawers, melamine fronts, laminate or poly laminate, rear parts with melamine finish. Stainless steel handles. Roca CUMBRE stainless steel sink with two buckets. Roca ESMAl series mixer faucets.

National granite kitchen countertop types: Porriño, Pearl Grey, Mondariz, White Cristal or Abero, finished with rectangular double ridge.

TEKA Vitroceramic hob with 3/4 cooking areas.

TEKA decorative smoke and fat extractor fan.

TEKA electric oven with separate installation.

## ELECTRICITY



Installation following the Low Voltage Electro technical Regulations. Electrification for 9.2 Kw. High quality electrical goods and premium brands, in white or cream. Jacks installation for telephone and Digital Terrestrial TV in all rooms, lounge and kitchen. Independent aerial. Two sockets for external entrance porch and garden. Two outdoor lighting points in garden. Video entry phone with automatic external door opening. Reserved power point with blind end, wirelessly directed to PAU from the kitchen and other bedrooms (vacuum pipe for cable TV)

## PLUMBING AND BATHROOMS



Water network developed in multilayered polyethylene tubed and recessed pipes, as official regulations, master valve and independent stop valves in each bathroom. PVC drains with floor traps. Connections for a washing machine and a dishwasher. Sanitary hot water production by one plate solar thermal energy system, using as auxiliary support an 80 l. electric accumulator.

ROCA sanitary equipment. Roca THE GAP toilets, sinks and bidet. Roca BLUES XL shower trays. Roca BECOOL bathtubs. Roca ESMAL series faucets.

## FENCES AND WALLS

Urban plots are fenced with brickwork and metal fence around the front of the plot, pedestrian door and vehicle access door. The rest of the fence enclosure is made with 2m.high simple twist.

In rural parcels, construction of a 5m. length wall on both sides of the vehicle and pedestrian access. Rest of the fencing with 2m high simple twist in an area of 2,000 m<sup>2</sup>.

## QUALITY CONTROL

Project quality control plan, laboratory tests, quality control monitoring during work execution by approved Technical Control Agency, technical direction of architect and quantity surveyor. Internal control technical inspection prior to delivery of the property to the client.



## **DOCUMENTATION**

Building project, Health and Safety Plan, Building Permit, Certificate of Completion, Certificate of habitability or first occupation.