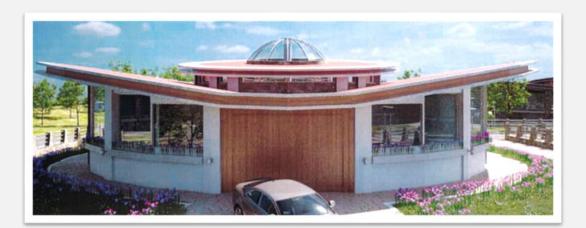
SERREMAR Italia S.r.l.





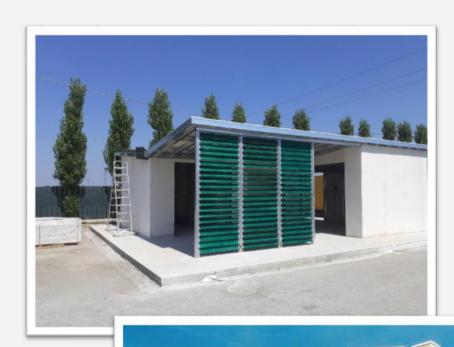
Building with Steel Frame technology

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THE BEST TECHNOLOGY AT YOUR SERVICE

SERREMAR ITALIA S.r.I. represents innovation in the construction sector, especially since the company approached the steel frame construction technique, acquiring the knowledge and skills necessary to be able to independently produce steel structures.

SERREMAR ITALIA believes that this construction method is optimal, as well as winning especially in the foreign market, more open to new innovative construction methods.





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STEEL FRAME STRUCTURE

Steel frame is a construction methodology based on the use of steel profiles for the construction of load-bearing frames, as well as vertical and horizontal closures.

The assembly of the building is called "dry", since it does not require traditional materials or techniques such as water, bricks, sand. The supporting structure of the building is made with cold bent steel profiles. To form the external walls, the structure is covered with concrete panels fixed with screws or rivets to the structure.

This technology brings with it countless advantages, including:

- 1) Strong acceleration in construction times;
- Cost reduction, both in the purchase of the house as well as in transport and assembly costs, thanks to the lightness and resistance of the material;
- 3) Possibility of both thermal and acoustic insulation of the house;
- 4) Significant reduction of processing waste,
- 5) Very high sustainability, as steel is 100% recyclable;
- 6) Energy efficiency, as the insulated envelope reduces the energy costs of the building;
- 7) Maximum design freedom.



MINERAL FIBER PANELS

Rock wool (or mineral fiber) is used as an insulating material, especially in construction, due to its extreme versatility.

Mineral fiber panels consist of rock wool, perlite, cellulose and binders.

Mineral fiber has characteristics of:

- Thermal insulator. The macroscopic fiber structure incorporates large quantities of air but does not allow the heat transfer from the outside to the inside and vice versa, insulating both heat and cold.
- 2) Acoustic insulation. The fleecy macroscopic structure attenuates noises, guaranteeing a good level of sound absorption.
- 3) Fire resistance thanks to its non-combustibility (Euroclass A1). It is also practically fireproof, not only for its high melting point (the fusion of the fibers occurs over 1200 ° C), but above all for its structure which is not capable of fuelling flames.
- 4) Resistance to humidity, as the mineral fiber is a highly draining material.
- 5) Impact resistance.
- 6) Relatively low cost.
- 7) Infinitely recyclable, and its waste is considered not dangerous, like other inert construction materials.
- 8) Efficiency energy. The insulating capacity of mineral fiber leads to inevitable positive consequences for the environment such as the reduction of gas and fossil fuels consumed for heating the house.





WALL INSULATION

The insulation of the walls can be made in different materials, according to customer's choice:

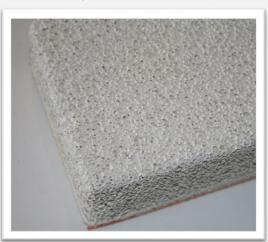
1) Mineral fiber panels;



2) Expanded foam concrete, which has characteristics of heat and sound insulation, resistance to frost and fire, as well as lightness;



3) Cellular concrete, which is a very light concrete with a cellular structure composed of small air bubbles, finely ground sand, lime and / or cement, water and additives. Cellular concrete has characteristics of thermal and acoustic insulation, economy, resistance to compression, lightness.



BUILDING WITH METAL STRUCTURE

The housing unit has a structure entirely composed of a metal profile of the appropriate thickness, and appropriately sized. All the vertical and horizontal structures will be of shape and size according to their arrangement in the housing unit. Once completed, the building will be highly seismic resistant.

(Below some examples of structure)





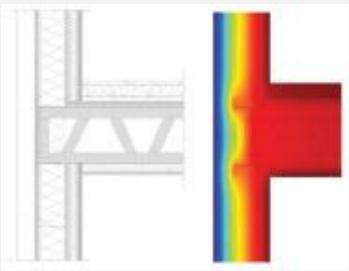
EXTERNAL/INTERNAL CLADDING WALL INSULATION

Once the entire load-bearing structure of the house has been completed, the internal and external infill with mineral fiber panels must be installed, fixing them to the structure with appropriately sized dowels.

The insulation of the walls can be achieved by inserting mineral wool between two fiber-cement panels or by injecting foamed concrete or cellular concrete. The wall as a whole, in addition to having good thermal transmittance, will also be fire resistant (class A1).





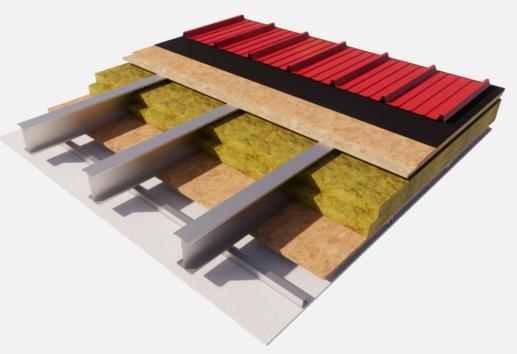


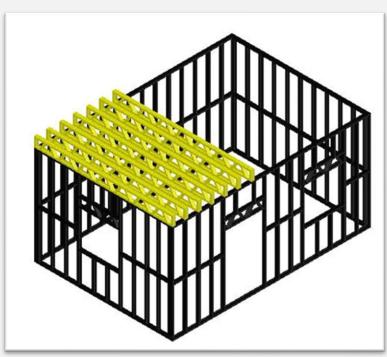
ROOF

The roofing structure must be made with lattice beams placed in place and fixed with appropriately sized connections. The internal part of the ceiling must be completely covered with mineral-fiber panels, while the upper part must be covered with wooden planks. The insulation for the roof is the same as for the insulation of the vertical walls, with the same properties. A waterproof membrane of the appropriate thickness will be placed above the wooden plank and, to complete the roof, a painted corrugated sheet will be installed in order to maintain ventilation of the roof.

To complete the roof, the pre-painted metal accessories (gutter channels, downspouts, flashings) must then be installed.

(Below example of roofing and beams)





INTERNAL AND EXTERNAL Doors and windows

The external and internal windows are made of white or colored PVC for the structure. The seals of the external windows are made of rubber and with double glazing for optimal insulation from the external climate conditions in order to prevent the interior heat loss towards the outside, ensuring optimal living comfort of the building.



INTERNAL AND EXTERNAL FINISHES

EXTERNAL FINISHES:

The external walls will be plastered in order to have a uniform wall, without signs of junctions or fixings and subsequently painted with the colors approved by the client.

INTERNAL FINISHES:

The internal walls, like the external ones, will be plastered in order to have a uniform wall, with no signs of joining and fixings and subsequently painted with the chosen colors.

The walls of the bathroom will be painted with transpirable water-repellent paint in order to avoid the formation of mold due to the condensation that normally forms in the bathroom.

INTERIOR FLOORING:

The internal floors are made of square ceramic tiles of suitable dimensions (tile model to be approved by the client), laid with suitable adhesive directly on the foundation slab and formation of expansion joints.

NOTE: the finishes and flooring will be adapted to the level of the home. SERREMAR considers three levels, starting from the lowest (social house), passing to an intermediate level, up to the highest level (luxury house).



ELECTRIC AND SANITARY SYSTEM

ELECTRIC:

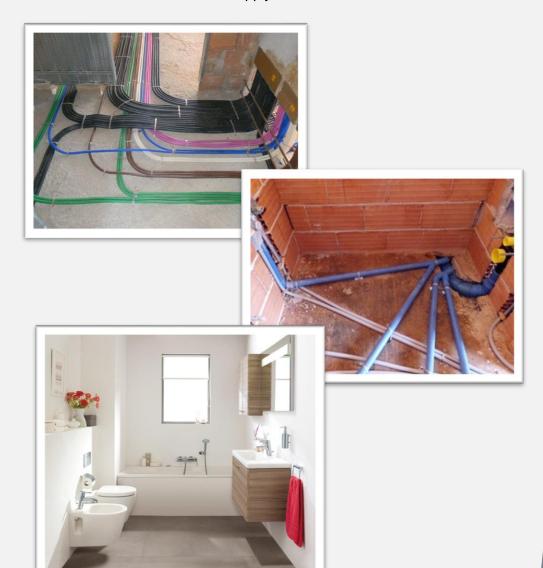
Material supply for the installation of the electric system. The ducts are laid for electrical cables, junction boxes and housing sockets, switches and light points.

WATER:

Material supply for installation of the water system of the building, serving the toilets, the bathrooms and the kitchen. The pipes are installed inside the building, for the water supply and the waste water drains (sanitary and kitchen).

BATHROOM AND TOILET:

Material supply for fitting bathroom and toilet furniture (toilet, bidet, sink, shower tray and relative shower head and taps) in ceramic material, with relative connection to the water supply and waste water drains.



SUMMARY OF THE SERVICES SERREMAR ITALIA

SERREMAR ITALIA is available to provide its customers with the following materials and services:

- Vertical and horizontal metal structure;
- External and internal infill in mineral fiber and relative profiles;
- · Cement mix and fiber-mesh for wall plastering;
- Roof waterproof membrane and metal sheets;
- Gutters and Downpipes for rain water;
- PVC joinery, specifically windows, French doors and both external and internal doors;
- Ducts for electric cables, junction boxes and housing for sockets, switches and light points;
- Plumbing system with related sanitary furniture (toilet, bidet, washbasin, shower tray, shower head and taps);
- Bathroom wall tiles;
- Flooring and its fixing adhesive;
- Painting for external and internal walls and ceilings;
- Material transport and / or shipment;
- On-site assembly and local installers training;
- Excavation and foundation works, including materials;
- · Roof accessories, including materials;
- Works relating to sewers and connections, including materials;
- Iron works;
- Outdoors's arrangements
- Disposal of all the resulting and waste materials from the processes listed above.

WHERE WE ARE

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