



< Hammams: Well-being at Home >

Well-being at home now knocking at your door

The "Hammam" has its origins in the Roman baths. The Hammam, long used throughout the ages, is now an important part of the new trend of well - being. Today, no need to move, hammam is installed right at your home without stress.

Marmox offers a range of modular ready to tile elements to build hammam at your home, quickly and safely.

The range of modular products

Marmox therefore offers a modular range of elements to assemble, articulated in three distinct ranges:

- Walls: Our walls are provided at specific widths, to accommodate all situations. Supplied with the necessary accessories, these panels fit together perfectly to form a perfect solid wall.
- Caps: With Marmox boards and the proposed range of accessories, you may choose a flat ceiling, pyramidal or tunnel.
- The benches: Marmox offers three types of benches, designed especially for your comfort by the architect Marc Gomez. Other designs are possible upon request.



Regular



Comfy



Chair



Mosaic cladding



Solid surface cladding

Marc Gomez: Architecture and Marmox Elements at your service

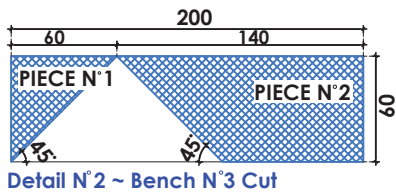


Each situation requires careful study and sometimes specific needs. In order to be adapted to each situation, each constraint, Marmox offers the services of Marc Gomez, an interior designer specializing in design and comfort.

Well-being and tastes are not universal! Each has his own unique and personal vision: Contact us and explain your project, to offer you a personalized study with a 3D view of your hammam.

Example customized Hammam in sections and 3D views



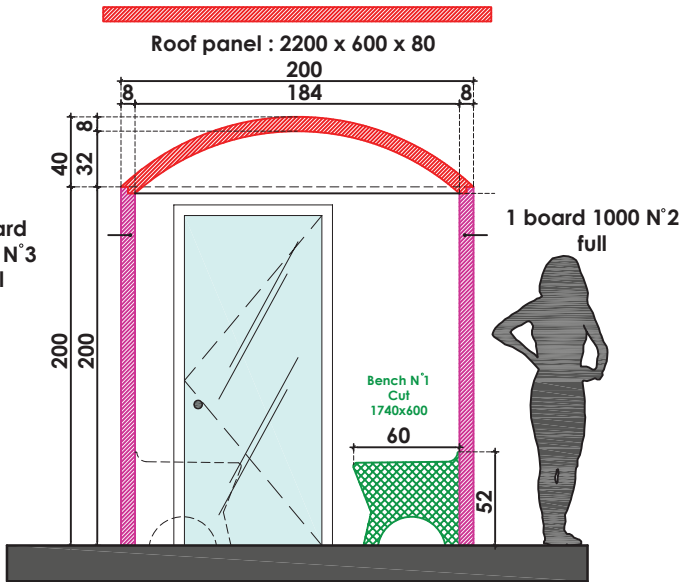
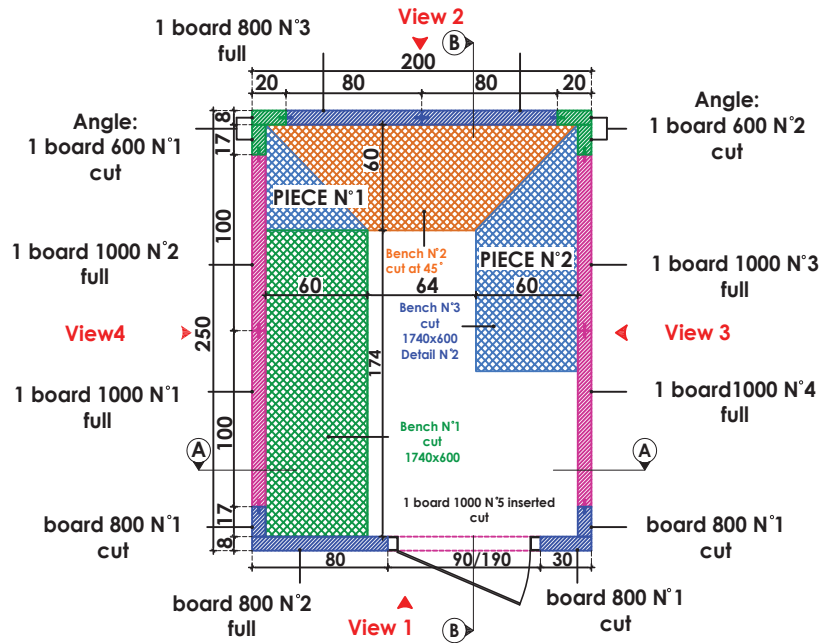


Detail N°2 ~ Bench N°3 Cut

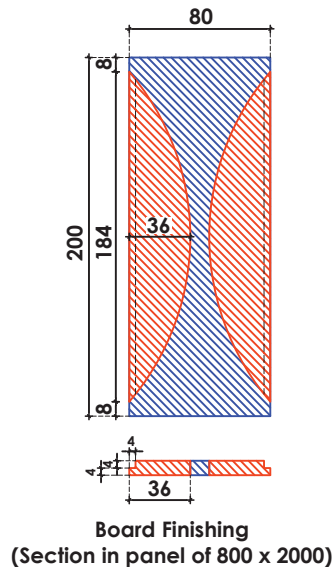
Designation	Dim.	Nombs.
board	600x2000	2
board	800x2000	4
board	1000x2000	5
board	600x2500	5
board	800x2000	1
Connector	80x2000	9
Bench	600x2000	3
Door	900x1900	1

- Ceiling 600x2500 CM
- Ceiling Finishing
- Board 600x2000 CM
- Board 800x2000 CM
- Board 1000x2000 CM

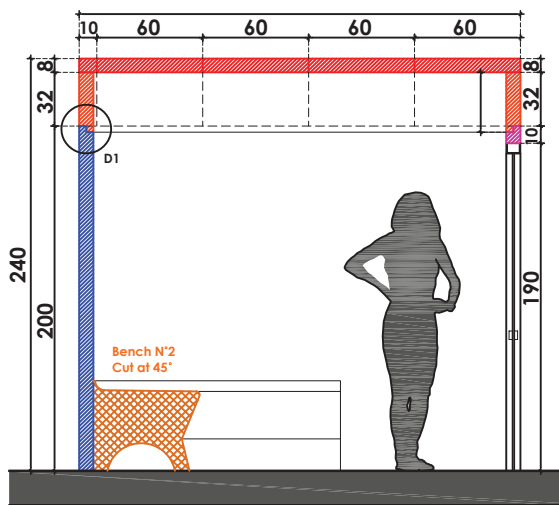
Plan ~ Scale : 1/20°



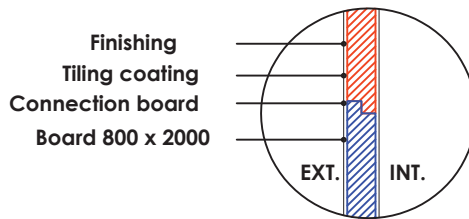
Section AA ~ ECHELLE : 1/20°



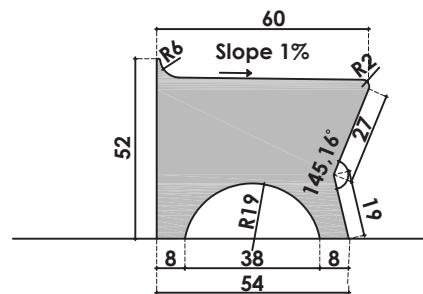
Board Finishing
(Section in panel of 800 x 2000)



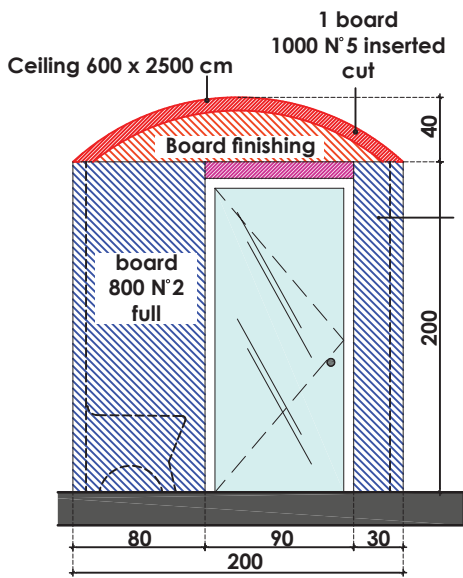
Section BB ~ Scale : 1/20°



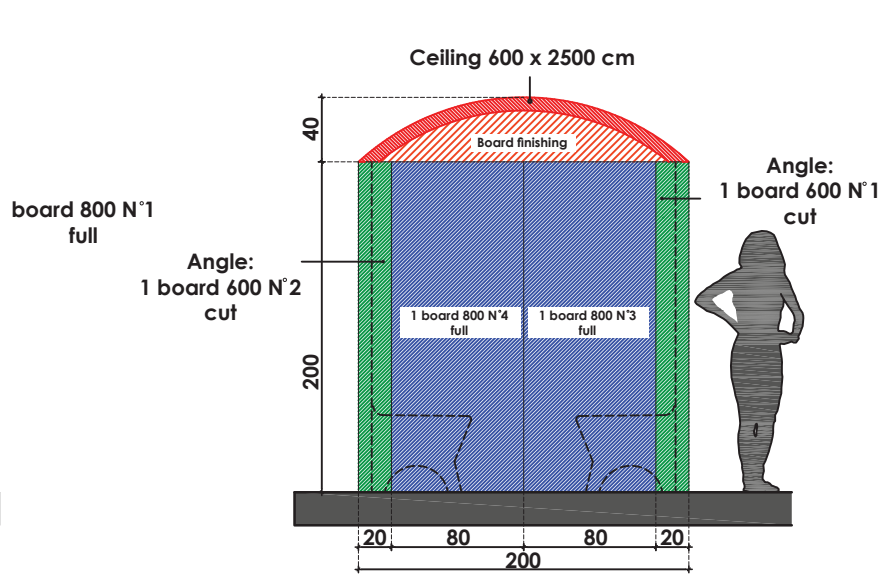
Detail D1 connector ~ Scale : 1/10°



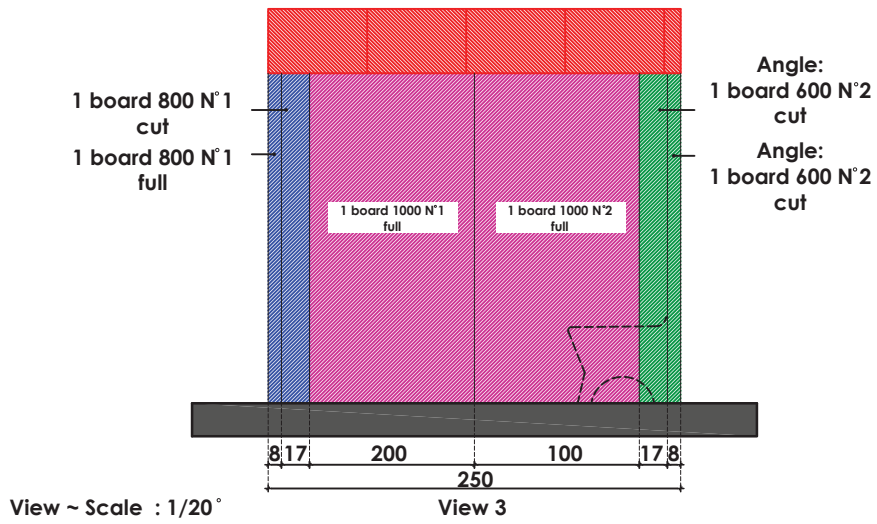
Section in Bench ~ Scale : 1/10°



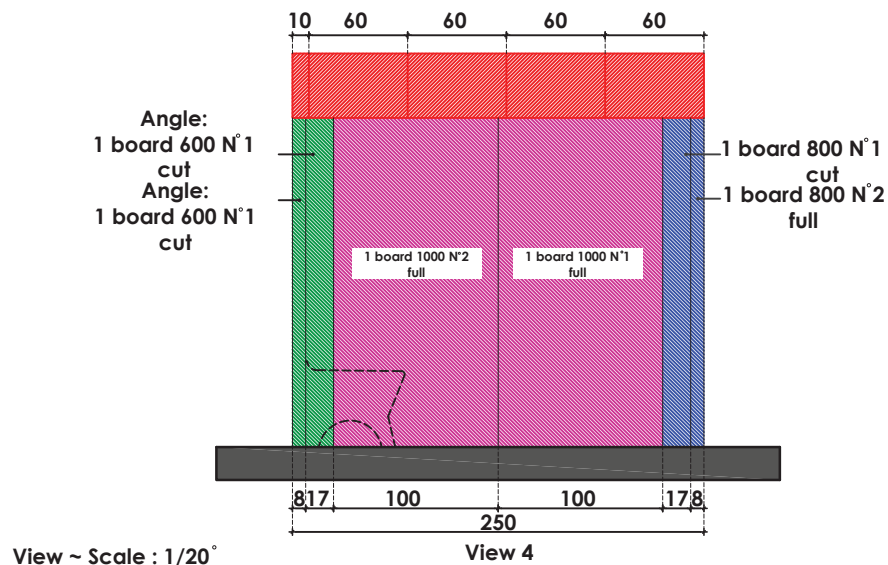
View 1
View ~ Scale : 1/20°



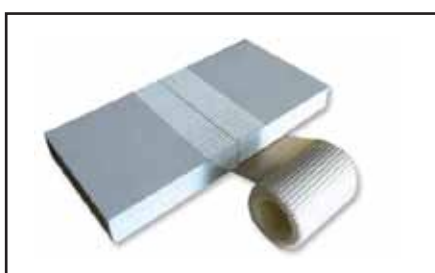
View 2




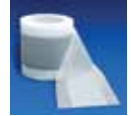
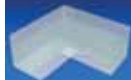










View ~ Scale : 1/20°

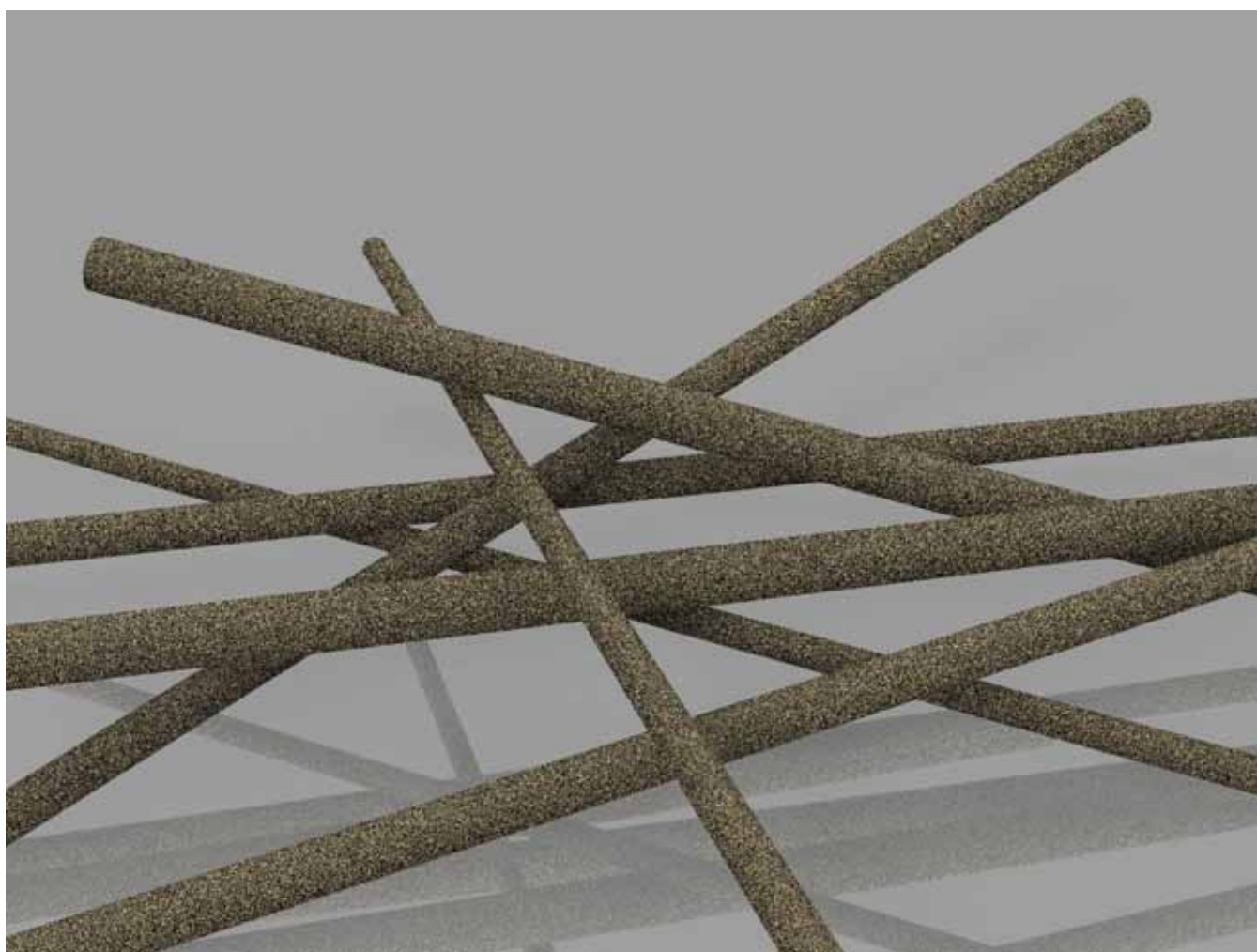


View ~ Scale : 1/20°



< Mounting accessories for ready - to - tile solutions >

Accessories			
Photo	Ref	Description	Packing
	ACC001	<ul style="list-style-type: none"> Reinforcing fiberglass tape 25 meter x 10 cm Used to reinforce the joints between boards and should be used in conjunction with a waterproof tile adhesive.	1
	ACC002	<ul style="list-style-type: none"> Sealing tape 10 meters x 12.5 cm linear Used to seal the systems of recipients, this band is equipped with an elastomer layer and a layer of polyester mesh to allow good joint and a perfect seal.	1
	ACC003	<ul style="list-style-type: none"> Corners sealing These corners will allow you to easily seal your system	1
	ACC004	<ul style="list-style-type: none"> Metal or plastic connectors and screws To strengthen the anchorages and connections between boards	20
	ACC005	<ul style="list-style-type: none"> Wall brackets The wall brackets are used for connecting the boards to the wall / floor. The brackets are applied firmly into the surface of the boards and is then put into position to screw in the wall / floor through the brackets.	2
	ACC006	<ul style="list-style-type: none"> Perpendicular brackets Brackets that are used to set perpendicular two perpendicular boards while the glue dries. The brackets are applied firmly into the surface of each board, after applying a bed of silicone / PU on each side of the board	2
	ACC007	<ul style="list-style-type: none"> Joints brackets Brackets that are used to connect two boards together online. The brackets are applied to joints in the foam of the two boards after applying a silicone or PU between the two boards	2
	ACC008	<ul style="list-style-type: none"> Waterproof mortar This waterproof tile adhesive cement base is supplied in bags of 5 kgs and allows you to paste and seal boards and receivers.	1
	ACC009	<ul style="list-style-type: none"> Self adhesive tape - 10 meters long This product is equivalent to the conventional sealing tape, but is equipped with an under layer of butyl to provide self adhesion to substrates.	1
	ACC010	<ul style="list-style-type: none"> PU Adhesive Sealant Cartridge This mastic adhesive bonding will guarantee a solid, fast and perfect sealing between the boards.	12
	ACC011	<ul style="list-style-type: none"> Slope piece 150 cm x 90 cm x 8 cm Slope piece is now a priority and although the italian showers respond very well to access to the disabled, the bathroom renovation do not always offer the possibility of having a shower in the floor. Marmox proposes a slope piece ready-to-tile in a standard size. Thickness: up to 8 cm / Length: 1.5 m / Width: 0.90 meters Can be cut to desired size and height, the slope piece that is ready to tile will provide an aesthetic accessibility to all shower underlays, while maintaining consistency in the bathroom on the ground	1
	ACC012	<ul style="list-style-type: none"> Sealing wall fleece The Marmox sealing wall fleece is designed from a polyester layer and a layer of thermoplastic elastomer. This fleece is ready-to-tile and will achieve a minimum thickness (300 g / m or about 1 mm thick), a perfect seal walls in the bathroom. The dimensions of the mat (length: 2.50 m width x 0.95) allows to seal a record to a height greater than one meter	1
	ACC013	<ul style="list-style-type: none"> Raising system in extruded polystyrene Available in the size of 120/120cm, Marmox raising systems are boards of extruded polystyrene 8 cm thick, with a central hole. It is specially innovated to enhance an installation of a shower underlay.	1



< Marmox FRP >

Corrosion of steel reinforcements in concretes due to humidity, chemicals and salts results frequently in sever damages and failures of concrete elements and structures. That occurs especially in last floors, bathrooms, kitchens, structures at the sea shore areas, factory floors, road concretes ... etc.

The yearly cost of repairing damaged concrete elements due to steel corrosion is estimated in Europe alone to be more than 3 billion USD. Therefore, alternatives for traditional steel reinforcements are continuously researched. Marmox® FRP is considered as one of the best alternatives. Marmox FRP are manufactured by high-tech pultrusion process from basalt stone fibers, specially modified epoxy binders are sands bonded at its surface to ensure high bond strength with embedding concrete. Marmox® FRP reinforcing bars are distinguished for its very high tensile strength (about 3 times that of the steel bars) as well as its extra-ordinary chemicals resistance. Furthermore, it has very light weight as its weight is about 10% less compared to steel reinforcement when the advantage of its higher tensile strength is taken into design consideration

Characteristics


- Very high tensile strength about 2.5 to 3 times of the traditional steel bars.
- Extra-ordinary high resistance to chemicals, salts, and corrosion even under very high humid environments and aggressive weathering conditions.
- Very high bond strength to concrete due to its sanded surfaces
- Low density, about 27% of steel. When its high tensile is considered in the design calculations the final weight required would reach only 10% of the necessary steel reinforcing for comparable tensile strengths.
- Considerably higher fatigue resistance
- High durable. A research report conducted a Sheffield University-UK concludes that the estimated environmental strength reduction factor for a period of 100 years wet concrete conditions is 1.25 which corresponds to a strength retention of 79.6%
- Low thermal conductivity: about 1.5% of that of steel
- Electrically non-conductive
- Non-magnetic
- Sustainable. A life cycle analysis has been conducted at Imperial College London. The report concludes that the production of stainless steel bars emits approximately 170% more CO₂ than the basalt fiber reinforced polymer bars.

Applications

- Concrete slabs and beams that are subjected to high humidity, wetness or aggressive weathering conditions like last floors, bathrooms, kitchens and sea shore buildings.
- Concrete elements that are subjected to chemicals and salt attacks like factory floors, harbour structures, cooling towers, bridges and dams ...
- Concrete road floors that are subjected to icing and salting treatments.
- Concrete elements that are subjected to magnetic fields holding equipments sensitive to electro-magnetic waves and cathodic cells in Aluminum factories
- Repairing and strengthening works of concrete structures.
- It is not recommended to use it in carrying columns in skeleton type structures

Dimensions and technical specifications

Charateristics	Results
Composition	Basalt fibres, epoxy binder and sanded surface
Density	Ca. 2.07 (± 0.03) gm/cm ³
Tensile strength	Ca. 1200 ($\pm 5\%$) N/mm ²
Modulus of elasticity	Ca. 50 ($\pm 5\%$) KN/mm ²
Thermal conductivity coef.	0.7 W/mk
Electrical conductivity	Non conductive
Dimensions	Diameters: 2.5, 3.00, 4.00, 25 mm Lengths: 6000 mm

	Reference	Thickness	Length	Width	No. of boards per pallet	Qty (m ²) per pallet
	2 FRP 1	3 mm	2m	1m	250	500

Marmox[®] FRP mesh

To facilitate site works especially for slabs and floors, Marmox[®] FRP can be prepared and delivered in a mesh form. The diameter of bars, spacing in both directions and mesh dimensions are produced according to design requirements and request.

Special limitations and recommendations

- Not recommended to be used for reinforcing of carrying columns in skeleton type structure.
- It is used at tensile zones of the structure element. Its compressive strength will be neglected when used at the compression zones of the element.
- The compressive strength of concrete elements at the compression zones is recommended to be lower than the tensile strength at the tensile zones to avoid sudden rupture of the elements.
- The bars may be slightly bent on condition it does not reach breaking of the bars of fibers

