

VERSION

3G

**Castelatto**

**TECHNICAL
INSTRUCTION MANUAL**

**APPARENTE - CRYSTALLI - CRYSTALLI MODULAR
CRYSTALLI ROLATTO POLIDO - ETRUSCO - GREZZO
IGNIS - LYON - PACIFIC POLIDO - PARIS**

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CONGRATULATIONS!

You have acquired a high quality differentiated product. To keep its characteristics it is necessary to have special precautions in its installation. We recommend the installation of the material being accompanied by qualified professionals: architects, engineers and building technicians, and laid by professionals specialized in laying marble, granite and concrete slabs. To hire a professional in laying the product that guarantees the success of his service is as important as purchasing a quality product.

Please read these instructions carefully before laying the material, so that you can fully enjoy the durability, beauty and innovation of our products. If you have any questions or want more information, please visit our website www.castelatto.com, or send an email to sac@castelatto.com.br or contact us by phone **55 11 4416-6900**.

2. PRODUCT

The floors and coverings Castelatto are crafted, so they may vary slightly in dimensions and colors, besides small marks in its edges. They are pieces of concrete of high performance and present as advantages of this material, high mechanic resistance and high durability, once installed correctly.

3. INFORMATION

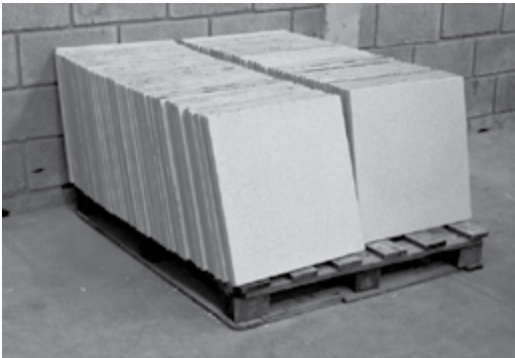
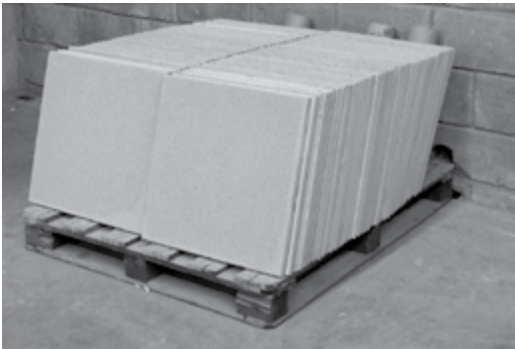
Castelatto has a **YouTube** channel with video lessons of laying our products. We also have a **Frequently Asked Questions** page on our website, go to www.castelatto.com.br and check all the information.

4. RECEPTION

- Choose someone you trust to be responsible for receiving and checking the material.
- Check the material as requested. If you notice any irregularities, follow the procedures described in item - DELIVERY AND CUSTOMER SERVICE.

5. STORAGE

- The product is sensitive to stains before applying the protection therefore it requires special care in transportation and handling.
- Those responsible for the unloading and storing of the product must have their hands clean or wear gloves to keep the pieces unstained.
- The material must be stored in a clean area, preferably covered, and the floor should be lined with plastic (do not use cardboard).
- Store the pieces vertically in order to keep them undamaged.
- Cover the pieces with plastic.



CAUTION

- We recommend not storing the pieces for a long time because they tend to create stains. This is a natural process of the concrete, and they are not considered a product defect.
- It is very important to have someone qualified to supervise the moment of storing to avoid irreparable damage to the product.

6. PLANNING THE INSTALLATION AREA

- Do the cleaning of the subfloor by removing all types of waste.



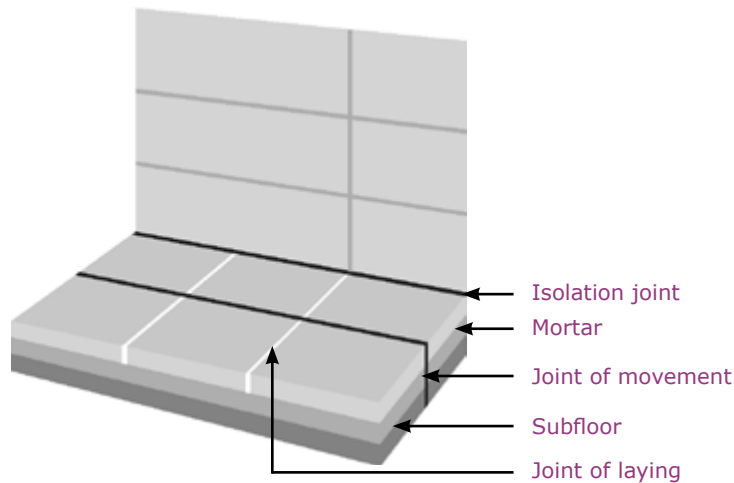
- Perform inspection of the base. If necessary, make regularizations.



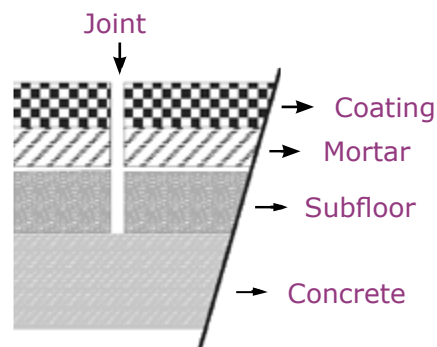
- Proof the subfloor.
- Check the moisture conditions of the subfloor. If there are signs of moisture and efflorescence, review the conditions of drainage and waterproofing performed.
- In case of laying on heated floors, check carefully all the requirements of the supplier of this system.

6.1. JOINTS DEFINITION

- **Joint of laying:** from 2 to 8 mm depending on the size of the piece.
- **Isolation joint:** these are spaces left at the intersection of the wall covered with floors, ceilings, columns, joists or with other type of covering. These spaces begin in the encounter between two pieces and cross the layer of plaster. Joints must be at least 5 mm.



- **Joints of movement:** on large areas, the joint of movement ensures that if the slab moves due to temperature variations, the laid floor remains intact. This space extends from the base (subfloor and plaster) to the covering. The joint must be at least 10 mm and should limit the paved rooms in maximum areas of 32 m² or the coverings in which one dimension is bigger than 8 m.



6.2 LAYING

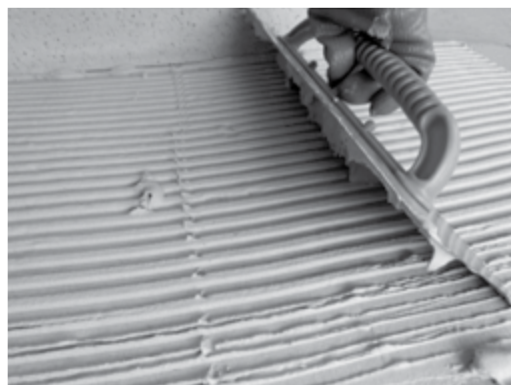
- The laying of Castelatto floor has to be, preferentially, the last stage of the construction (even after the execution of the garden). It prevents the covering to get damaged.
- The product allows the loss of humidity of the installation (mortar and joint). After laying and cleaning the product, it is important to protect the floor with a waterproof coating.
- The floors and coverings must be laid on a subfloor properly waterproofed, with a minimum of 21 days of cure and exempt of any dirt or dust.
- It is important to eliminate any remaining dirt, dust or cement on the face of the laid piece.
- Use a steel bristled brush and remove the dust with a damp sponge.



- Use flexible gluing mortar specified for large formats (follow instructions of the manufacturer and pay attention to the time suggested for the post-laying traffic). For light colors, always prefer mortar in white.
- Due to its crafted process, the reverse side of Castelatto floors presents certain irregularity that must be compensated with mortar, assuring its correct leveling.
- Moisten the subfloor.



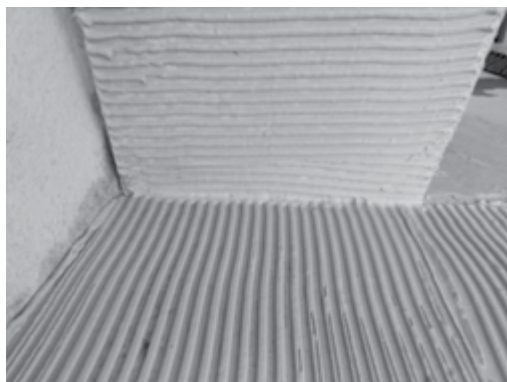
- For the application of the already prepared mortar on the floor, a 10 mm notched trowel should be used. Apply the mortar with the flat side with an approximate angle of 30°. After this, form ridges on the surface with the notched side with an angle of approximately 60°.



- On the backside of the pieces, repeat the procedure in opposite direction, thus forming crossed ridges in order to get compensation in the crush of the ridges.



- Do not spread mortar in areas of more than 1,5 m² at a time, in order not to exceed the open time indicated by the manufacturer.
- Place the piece on the mortar applied on the floor, at about 5 cm from its final position. Then, press the piece by dragging it until it reaches its final position.



- Check the mortar every 10 laid pieces, removing the piece to verify the correct crushing of the ridges and the percentage of filling on the backside of the pieces.



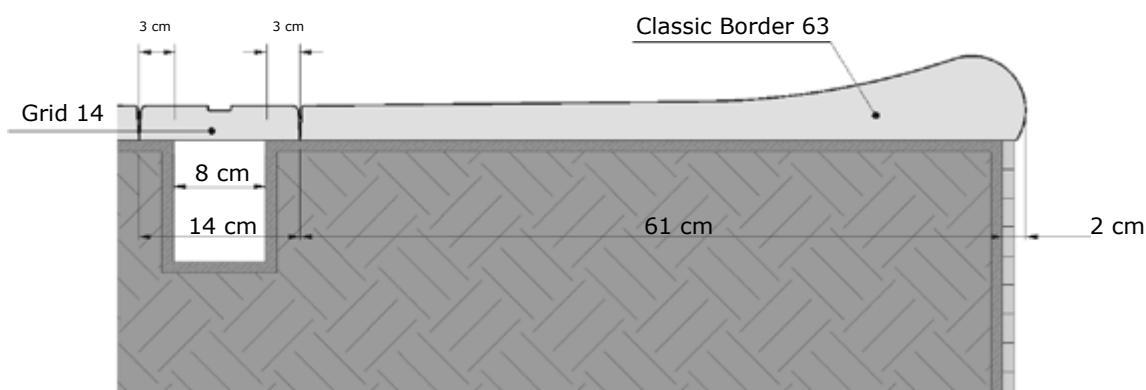
- If the ridges are not totally crushed, remove all the pieces and start the laying again.
- For laying that exceeds 3 meters in height, please contact the factory about the use of metal inserts.
- In case of any doubts contact CSC department of Castelatto.

6.3 GRIDS – ETRUSCO, GREZZO AND CRYSTALLI LINES

To facilitate the cleaning and maintenance of the grooves, we indicate not to fix the pieces of grids in the laying mortar. Follow the instructions below:

- Apply the mortar to the subfloor that will receive the grid.
- Put on the mortar a piece of plastic that exceeds the laying area.
- Lay the grid on that plastic, leveling it by its surface. This procedure has the function of forming an adjusted cradle for each piece.
- After the drying time of the mortar (follow mortar manufacturer's instructions), remove the piece of plastic and set the grid in its place. The piece will be loose but fully supported.
- The Grid 25 cm should be used only as drain flow.

DETAILING



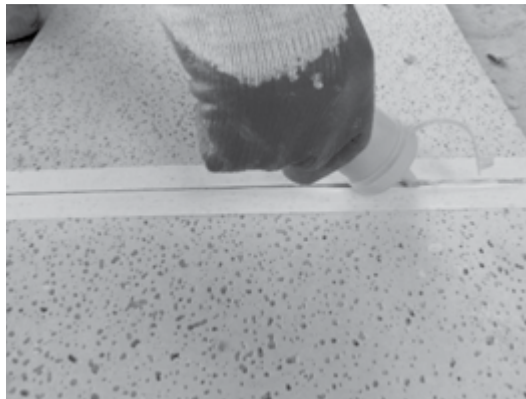
Cut: Grid 14 (groove) + Classic Border 63



Check out our YouTube channel and watch the video lessons of laying Castelatto products.

7. GROUTING

- Castelatto produces appropriate grout for its products, which makes it more harmonious.
- The average yield of grout is 18m².
- The width of the joint may be from 2 to 8 mm, depending on the size of the piece.
- The grout must be applied after the time of the release of the traffic.
- We warn that for a good performance of the grouting, the technique of preparation, dosing, mixing, time of resting and application must be observed.
- Wet the joints before grouting.
- It is recommended to apply the grout with a tube to ensure the cleanliness of the piece without clogging the pores and shafts.
- Use masking tape, preferably Norton (trademark), for the protection of the piece. You should remove it as soon as the grout is applied.



- It is recommended to avoid direct sunlight on the floor while applying the joining material. 4 hours later spray some water on the applied product to keep the joints humid.
- Do not use any kind of acid to clean the grout.
- Grouting does not apply to Lyon line, which should be laid with dry joint.

8. CLEANING

CLEANING IN THE BUILDING SITE

- It is very important, after laying the floor, to keep it covered with plastic until the construction work is completed to avoid any dirt (do not use cardboard).
- Clean with alkaline detergent.

- Do not use acids, not even those cleaning products of acid base recommended for cleaning stones and others.
- If any area has spots or is very dirty, consult Castelatto about procedures.
- The post-construction cleaning should be performed, at least, 72 hours after grouting.
- The floor will have its aesthetic appearance guaranteed, if periodical cleaning is done.

MAINTENANCE CLEANING

- In external areas use high-pressure washer (flat fan jet) and alkaline detergent.
- For pieces in contact with the water of the swimming-pool water, we recommend the correct control of the water pH. Excess of acidity or alkalinity of the water can change the characteristics of the product.

ALKALINE DETERGENT

- ▶ Indicated for post-construction cleaning and maintenance.
 - ▶ It has a wax-cleaning function according to the dilution used.
- Rinse the floor with clean water.
 - Apply the product and leave it for 5 minutes.
 - Rub with brush or broom.
 - Wash with abundant water (never leave the detergent dry on the piece).
 - It is ideal the use of a high-pressure washer (flat fan jet).



DILUTION

- For general cleaning, dilute the detergent in water, with the proportion of 1:10.
- For construction cleaning, dilute the detergent in water with the proportion of 1:5.
- For post-construction cleaning, use the detergent to clean **without** the dilution.

DILUTION	TYPE OF CLEANING	YIELD
1:0	POST-CONSTRUCTION CLEANING	5 M ²
1:5	HEAVY CLEANING	30 M ²
1:10	AVERAGE CLEANING	60 M ²
1:20	LIGHT CLEANING	120 M ²

9. PROTECTION

- It is essential to use products that protect the floor and facilitate the maintenance cleaning.
 - The waterproofing of the floor must be redone whenever shows attraction signs or when appears fungus on the surface piece.
 - Before applying any protective product, the floor must be clean, dry and humidity free.
- ▶ Outdoor areas: the time required to the floor be completely dry, will depend of weather conditions, with minimum of 24 hours.
- ▶ Internal areas: Wait a minimum of 48 hours.

1. WATERPROOF FACTORY LINES

- Ignis

2. LINES FOR THE APPLICATION OF FUGANTE OIL

- Lyon, Paris e Etrusco

3. LINES FOR THE APPLICATION OF FUGANTE OIL AND INTERNAL AREAS WAX

- Apparente, Crystalli, Crystalli Modular, Crystalli Rolatto Polido, Etrusco, Grezzo, Pacific Polido e Paris

4. LINES FOR THE APPLICATION OF FUGANTE OIL AND EXTERNAL AREAS WAX

- Apparente, Crystalli, Crystalli Modular, Crystalli Rolatto Polido, Etrusco, Grezzo, Pacific Polido e Paris

WATERPROOF FUGANTE OIL

- ▶ Fungicide and algaecide product.
- ▶ The floor do not have any visual alteration after the product application.
- ▶ Does not creat any film on the floor.
- ▶ It keeps the antiskid properties and protects against oil and fat.

Yield per liters of Waterproof fugante oil.

(1 COAT)	(2 COATS)	
LYON	PARIS	ETRUSCO
8 m ²	8 m ²	6 m ²



- Must be applied on the floor when it is clean and dry.
- Apply it with gardening spray
- Apply 1 coat in Lyon line.
- You must wait 2 hours between the first application and the second.
- Last Drying: 12 hours.

INTERNAL AREAS WAX

- ▶ Slightly intensifies the color.
- ▶ Create a protective film.

Yield per liters (for 1 coat): 16m²

- Must be apply under clean and dry floor
- Dilute the wax in pure water at the proportion of 1:1
- Apply it with mop or cloth.
- Last drying: 12 hours.



EXTERNAL AREAS WAX

- ▶ Slightly intensifies the color.
- ▶ Create protective film.

Yield per liters (for 1 coat)

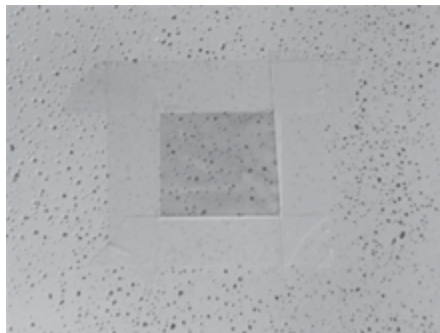
APPARENTE	CRYSTALLI	ROLATTO POLIDO	GREZZO	LYON	PACIFIC POLIDO
8 m ²	16 m ²	8 m ²	16 m ²	16 m ²	8 m ²

- Mus be apply on clean and dry floor.
- Apply the product with gardening spray.
- Last drying: 12 hours.
- Dilute the wax for external areas in clean water in the ratio of 1:1.



10. MOISTURE TEST

We suggest a simple test to check the presence of moisture in the subfloor. Take a thin piece of clear plastic and place it on the floor, securing it with masking tape, preferably the Norton brand, to remain in place for a period of 24 hours. After this time, remove the plastic, verifying if the part in contact with the floor is damp or with drops. If so, wait a little longer to start the application of the protection.



11. DELIVERY AND CUSTOMER SERVICE

ORIENTATION FOR THE CONSUMER WHEN RECEIVING THE PRODUCT

Check whether the product is according to the request. If you notice any irregularities, follow the procedure bellow:

- Record the occurrence on knowledge of the delivery.
- Report immediately to the resale.
- You should never install the product if you find any visible defects. According to the Law of the Consumer when a product is installed it is considered accepted.
- You should always keep your receipt in case of future technical assistance.

We clarify that the phenomenon of efflorescence is not a defect, as it does not change the structural characteristics of the product.



SAC Castelatto
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