



## Instructions for fitting **Natural Stone**

- 1. Choosing the right tools to fit the Stone is very important: Radial drilling machine or cutting table with a water cooled diamond bit/disc, a toothed trowel, level, white rubber hammer, rubber trowel or spatula for grouting, jumper struts for the joints and bowls or buckets for mixing adhesives.



- 2. There should not be a gap of more than 5 mm when checking the flatness of the mount with a 2m rule. Anything in excess of 5mm must be reduced and the mount should be stable, strong and completely dry to ensure bonding.



- 3. The surface to be covered needs to be cleaned beforehand and free of grease, dust, bits of mortar etc. so that the best bond is obtained.





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4. Adhesives need to be chosen in line with the uptake of the material and the type of mount. Although these vary, as a precautionary measure, INMAR does not recommend the use of mortar and sand, due to the fact that sand contains salts. These salts are diluted when the cement is mixed with the sand and water and can be absorbed by the porous stone, forming undesirable efflorescence of whitish salts. For highly porous materials, like sandstone and limestone, INMAR advises a C1 adhesive for indoor use, and C2 for outdoor use. For marble and granite, wherever applied, C2 is needed due to its excellent adhesion and elasticity. Reactive resin adhesives type R are recommended for natural stone materials that are backed with fibreglass or wire mesh.



5. The adhesive should be evenly spread over the whole surface using a toothed trowel. Double bonding, that of applying a fine layer of adhesive to the back of the material, should be used on formats bigger than 30x30, to guarantee contact with the bonding substance.





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- 6. Put the pieces in place using a rubber hammer to completely flatten all the ridges in the adhesive made by the toothed trowel. INMAR recommends leaving a gap of at least 1.5mm indoors and 3mm outdoors between sections to allow for any expansion or contraction of the material from changes in ambient temperature while, of course respecting the structural and perimetral joints.



- 7. Grouting is the process of filling in the gaps left between pieces. The gaps should be free of bits of mortar and dirt so that the grout is effective and sticks well.



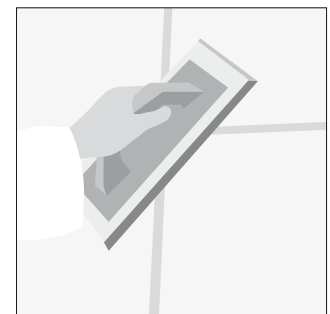


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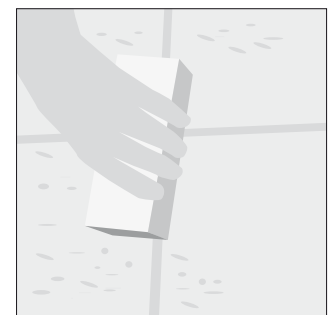
- 8. After adhering the material a period of 24/48 hours should be allowed before grouting to let the water in the mortar evaporate. This prevents damp stains and efflorescence from forming over time.



- 9. The grouting material should only be applied to the space in between the pieces and not, as is common practice in grouting, over the pieces themselves as well. Given the porous nature of the stone, this would lead to the grout becoming embedded and difficult to eliminate where it is not required.



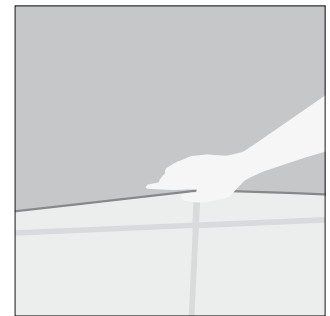
- 10. Excess grouting material should be removed with a damp cloth soon after it is applied and before it forms incrustations.





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- 11. When floors are laid which are not going to be polished once laid but already have a (polished, honed etc.) finish it is recommended that they be protected during the process to ensure that they are not damaged and can be kept clean.



### **Advice**

Graphite pencils are recommended to mark the natural stone before making grooves.

To bore holes, use Widia drill bits, starting with finer ones until the required size is obtained.

