



**CERAMIC TILE INSTITUTE OF AMERICA, INC.**

*12061 Jefferson Blvd., Culver City, CA 90230-6219*

## **CTIOA Field Report 90-11-2**

**SUBJECT: GROUT JOINTS**

### **I. Introduction**

- A. With all of the field reports CTI has written it is believed yet another one is needed. This field report is on the grout joints in our tile installations and the width of the grout joints. This is because of numerous phone calls asking about the recommended width of the grout joints.
  
- B. A good percentage of the questions are in regard to the grout joints in marble tile, which has become much more widely used in recent years.
  
- C. Unfortunately, many of the question are asked because the installation is all complete and the owner is not satisfied with the width of the grout joints.

### **II. Discussion**

- 1. The width of the grout joints is one of the items that should be selected by the owner. The width of the grout joint should not be left to the whim of the installer.
  
- 2. The grout joint is only a small percentage of the square footage of an installation but what an important percentage it is. The grout and the

grouting can enhance the final appearance of the installation or it can detract from the appearance of the final installation.

3. Through the years there have been some customary joint widths on certain types of ceramic tile:
  1. Decorative hand crafted tile on vertical surfaces were installed with an approximate 1/2 inch wide grout joint. This type tile was mostly in 6 x 6 inch or smaller sized but all installed with a wide grout joint. Sometimes there were patterns where four small tile had to line up with one 6 x 6 tile. In these situations the width of the grout joint was dictated by the width between the four small tile, so as to be lined up with the larger tile.
  2. There was a time when glazed wall tile was installed with string joints, which made the grout joints about 1/16 inch wide. The 1/16 inch wide grout joint made a very satisfactory grout joint width. There was also a time when the glazed wall tile was installed tight joint, which resulted in unsatisfactory grout joint widths. This was followed by the manufacturers putting lugs on the edges of the tile to space the tile.

Lugs on the tile made the installation of glazed wall tile go faster but for the most part the grout joint was too narrow. With the small amount of grout in the joint it is difficult to obtain uniform grout joints. There is usually an overglaze on some edges of the glazed wall tile. If the edges of two tile come together without any overglaze the grout sets different than if there is one overglazed tile next to one having no overglaze or joints where two overglazed edges come together.
  3. Historically the small ceramic mosaic tile have been mounted with an approximate 1/16 inch wide joint and still is today. For quarry tile and paver tile 1/4 inch wide grout joints have been the normal width for years and still is today.
  4. The grout joint width for large sized tile have been going in two directions. Large precision made tile are using a comparatively narrow joint. Large handcrafted tile are using a wide grout joint, some up to one inch wide.

5. Marble tile and granite tile have been a mixed bag for the grout joint width. This has resulted in dissatisfaction where the joints have been too wide an dissatisfaction where tile has been installed tight joint. It is easy to see that extremes of too wide or too narrow should be avoided.

### **III. Conclusion**

A. When we get right down to selecting the grout joint width it should be made by mutual consent of the interested parties. The owner, who has to live with the installation, should have a big part in the decision.

B. If recommend widths are wanted consider the following:

1. Decorative handcrafted tile  $3/8$  to  $1/2$  inch.
2. Mounted, handcrafted tile in  $3 \times 3$  and  $4 \times 4$  as mounted,  $1/4$  inch.
3. Glazed wall tile, as dictated by the lugs or  $1/16$  inch.
4. Ceramic mosaic tile as mounted, usually  $1/16$  inch.
5. Quarry tile and paver tile  $1/4$  inch.
6. Large sized of precision made tile, such as  $24 \times 24$  inches,  $3/16$  to  $1/4$  inch.
7. Large sizes of handcrafted tile  $1/2$  to  $3/4$  inch.
8. Marble tile and granite tile  $1/16$  inch minimum and  $3/16$  inch maximum.

- C. It must be understood by all, if mounted tile is selected the grout joint width is established at the factory and cannot be changed.
  
- D. A good practice is to show the tile sample grouted when the selection is made.
  
- E. Beauty is in the eyes of the beholder and the decision on both tile and grout width should be made by the owner.