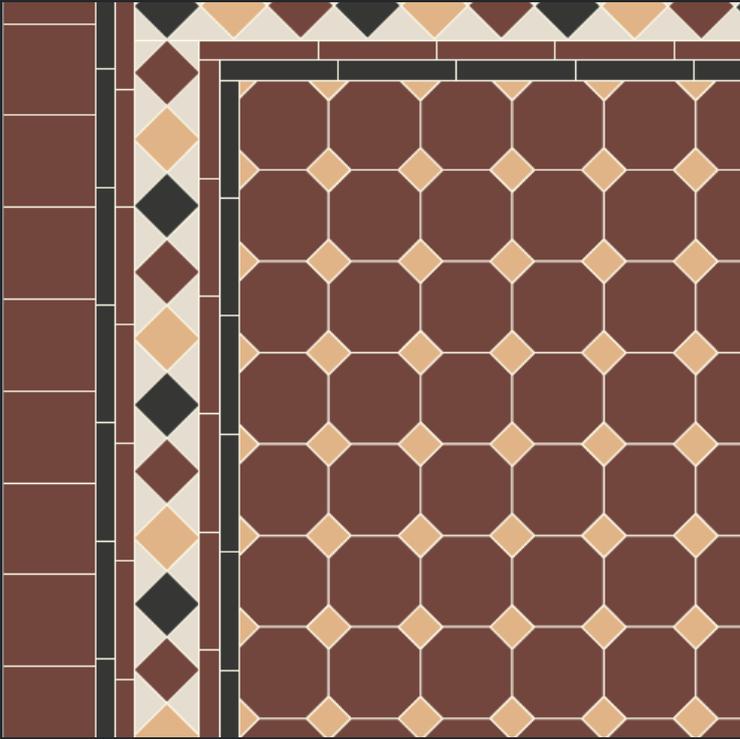




Tessellated™  
TILE FACTORY



## CASE STUDY

# Octagon & Dot

This pattern features the 96mm octagon and 35mm square, shown with a Norwood border and a double row of strips.

## History of Tessellation

Tessellated tiles have a strong association with Australian architecture, particularly during the late 18<sup>th</sup> and early 20<sup>th</sup> centuries. The history of Australian architecture is diverse and influenced by a range of factors such as European settlement and global trends. Tessellation were a popular feature in a variety of architectural styles during this period, contributing to the distinctive character of many Australian homes and public buildings.

### 1. Colonial period (18<sup>th</sup> century to mid 19<sup>th</sup> century)

The arrival of European settlers in the late 18<sup>th</sup> century brought architectural influences from Britain. Initially, simple structures were constructed using local materials. As the colonies developed, more sophisticated building emerged, often replicating architectural styles of the time. It is in this stage that tessellation became a known feature in a colonial home.

### 2. Victorian era (mid 19<sup>th</sup> century)

The mid 19<sup>th</sup> century saw the influences of Victorian architecture in Australia. The period coincided with leading rapid increase in population and the construction of grand public buildings, mansions and terrace houses. Georgian and Italianate styles were prominent at this stage. Tessellated tiles would become more complex in geometry and design.

### 3. Federation period (late 19<sup>th</sup> century to early 20<sup>th</sup> century)

The federation period roughly form 1890 to 1915, marked the establishment of the commonwealth of Australia. Architectural styles during this time were diverse and included Edwarding architecture. Federation homes often featured ornate detailing, tessellation, stained glass windows and decorative elements.

## Objectives

### Aesthetic Appeal

Tessellation, the arrangement of shapes in a repeated pattern with no overlaps or gaps, can contribute significantly to aesthetic appeal in various design contexts.

### Geometric harmony

Tessellated often involves geometric shapes like squares, triangles, or hexagons arranged in a repeated pattern. The geometric harmony created by tessellation can be visually pleasing, offering a sense of order and symmetry.

### Repetitive patterns

The repetition of shapes in tessellation created visually striking and cohesive patterns. The predicatability of the repetition can have a calming effect, or depending on the design, generate a sense of movement and dynamism. The pattern repeat has everything to do with the makeup of tessellated tiles. There are many variants of octagon and dot where the use of two or more colours are incorporated.

### Octagon & dot repeat

Pattern Repeat



Octagon

96 x 96

Red



Square

35 x 35

Vanilla

### Complexity and simplicity

Tessellation allows for the exploration of both complex and simple patterns. Some designs may be intricate and detailed, while others may embrace simplicity. The ability to balance complexity and simplicity contributes to the versatility of tessellation in achieving different aesthetic effects.

## Artistic expression

Tessellation is often used as a form of artistic expression, providing a platform for creativity and innovation. Artists and designers can use tessellation to create unique and visually captivating designs that reflect their style and vision.

## Variation in scale and colour

Tessellation allows for the incorporation of variations in scale and colour, adding depth and visual interest to the pattern. This flexibility enables designers to create compositions that are dynamic and engaging.

## Octagon and dot variants

Octagon and dot tessellated patterns can be laid in variant methods.

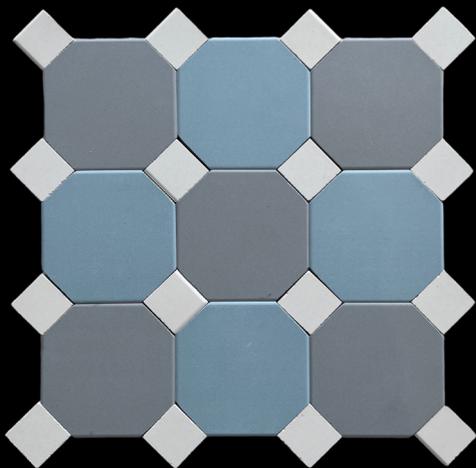
Octagon and Dot - 96mm, 2 colours



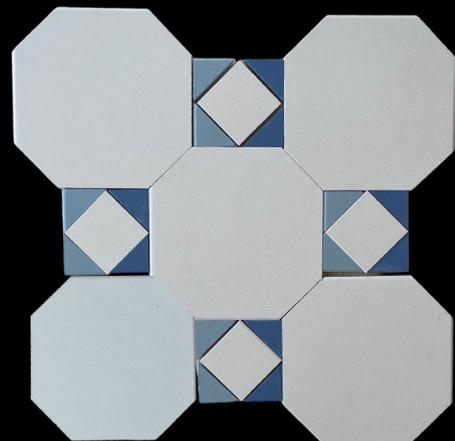
Octagon and Dot - 146mm



Octagon and Dot - 96mm, 2 colours



Octagon and Dot - Raglan



## **Durability and longevity**

The durability of tessellated tiles contributes to their long-lasting aesthetic appeal. Their ability to withstand wear and tear ensures that the aesthetic qualities endure over time, maintaining the visual appeal of the space.

Tessellation offers a versatile and powerful tool for creating aesthetically appealing designs across a range of application. Whether used in art, architecture, or digital design, the ordered repetition of shapes in tessellation can capture attention, convey a sense of harmony, and contribute to the overall visual appeal of a space or composition.

## **Solution**

### **Durability**

The durability of tessellated designs can be influenced by various factors such as the quality of the product. Tessellated tiles are made from fully vitrified porcelain and are baked at extreme high heat. The choice of material affects the tiles ability to withstand wear, impact and environmental factors.

### **Quality of construction**

The construction quality of tessellated designs plays a crucial role in their durability. Proper fabrication and installation, including precise cutting and fitting of individual tiles, contribute to the overall strength and longevity of the tessellated pattern.

### **Grout and joint integrity**

The durability of tessellated designs is not solely depended on the product but also on the grout and joints that hold them together. Properly sealed grout lines and well maintained joints are essential for preventing water infiltration and maintaining the integrity of the tessellated pattern.

### **Sealing materials**

Applying sealants to tessellated tiles can enhance their durability. Sealants help to protect the material from moisture absorption, stains and other potential sources of damage.



# Solution

## Hygiene and sustainability

Tessellated tiles hygiene and sustainability depends on the materials used, installation practices and maintenance considerations.

### Hygiene

Tessellated tiles are non-porous surface meaning they are low maintenance product and are easy to clean, making them more hygienic as they are less likely to harbour bacteria. Proper sealing and regular cleaning of grout lines are essential for maintaining hygiene. Additional regular cleaning practices such as sweeping and mopping, can help with maintaining a hygienic environment.

### Sustainability

The sustainability of tessellated tiles is influenced by the materials they are made of in this case they are fully vitrified porcelain opting for eco-friendly materials as tessellated tiles do not emit any toxic fumes or contribute to plastic pollution.

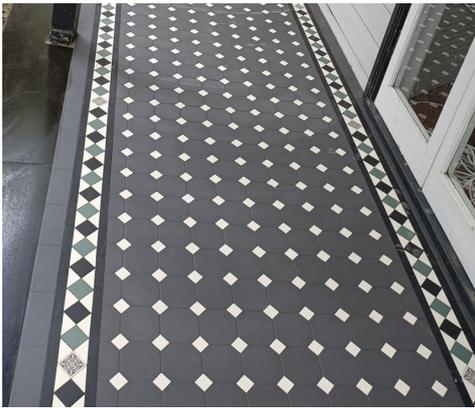
Tessellated tiles have a long-lasting lifecycle making it a durable product where tiles that require infrequent replacement contribute to sustainability. In all the hygiene and sustainability of tessellated tiles depends on material choices, installation practices, and maintenance considerations. Selecting materials with hygienic properties, ensuring proper installation and maintenance, and opting for sustainable production practices contribute to a more environmentally friendly and hygienic use of tessellated tiles.



**Hygienic &  
Non-porous**



# Projects







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