P122300NL00

Title: Water permeable brick

## FIELD OF THE INVENTION

The present invention relates to a water-permeable brick.

## BACKGROUND TO THE INVENTION

Paving ground areas using bricks has been known for a long time. It is also known that conventional brick paving has a drawback in that water, e.g. precipitation, such as rain water, can hardly seep through such brick layer to infiltrate the underlying soil. Therefore, generally water drainage constructions are incorporated in paved areas. Such drainage constructions generally include gutters, drains and underground rain water piping. The drainage constructions can be costly, and in case of heavy rain fall can prove insufficient resulting in local flooding. Moreover, when using such constructions the rain water does not infiltrate into the soil underneath the brick, causing the ground to dry out and contribute to urban heat island effects.

Solutions have been proposed to provide bricks that allow rain water to pass the bricks and infiltrate into the soil underneath the bricks. This helps nearby vegetation, allows brick pavement without costly drainage constructions, and aids in reducing heat island effects. The known solutions often rely on water channels being provided through or between the bricks.

It has been found however, that the known solutions are prone to clogging due to fine sand, dust, and dirt accumulating in water passage channels.

## SUMMARY OF THE INVENTION

An object of the invention is to provide a water permeable brick that is less susceptible to clogging. Alternatively, or additionally, an object is

to provide a water permeable brick in which clogging can easily be undone. More in general, an object is to provide an improved water permeable brick.

According to an aspect is provided a water-permeable brick. The water permeable brick includes a brick body having an upper face and a lower face. The brick body can be made of a stony material, such as concrete, natural stone, clay, ceramics, plastics, or the like. The brick body includes at least one aperture extending though the brick body from the upper face to the lower face. The brick includes a water-permeable sheet closing the aperture proximate the upper face. The brick further includes a porous layer covering the water-permeable sheet. The brick can have a substantially flush top surface, such that the top surface forms a substantially continuous plane. Thereto, a top surface of the porous layer can be substantially flush with the upper face of the brick body. Alternatively, the porous layer can be positioned, at least partly, on top of, at least a part of, the upper face of the brick body. The porous layer is relatively thin. A thickness of the porous layer is between 0.5 – 8 mm, preferably between 1 – 6 mm, more preferably between 2 – 5 mm. The water permeable sheet closes the aperture against sand, dirt and debris, while allowing water to pass through. The porous layer protects the water permeable sheet, e.g. from being punctured, and provides a top layer to walk on, drive on etc.. The relatively thin thickness of the porous layer provides the advantage that while sand, dirt and/or debris (hereinafter referred to as “sand”) may accumulate within the pores of the porous layer, the small amount of sand in the porous layer still allows substantial amounts of water to pass the porous layer. It will be appreciated that the clogging of the porous layer of 0.5-8 mm thick will provide much less resistance to water flow passing than if sand would penetrate into a porous structure of the entire thickness of the brick body, often 5-10 cm. Moreover, surprisingly it has been found that due to the relatively thin thickness of the porous layer, removing accumulated sand from the porous layer (declogging) can easily achieved by washing with a jet of water, e.g. using a garden hose or a high-pressure water cleaning device. Hence, the

effects of clogging can easily be largely reversed. Optionally, a water-permeability of the porous layer is larger tan a water-permeability of the water-permeable sheet Hence, the sheet forms the limiting factor in view of water transmission of the brick.

It is noted that the top surface of the brick being "substantially flush" herein includes that the top surface of the brick is at the same level over the brick body (outside the aperture) and over the water-permeable sheet (over the aperture) within +/- 10 mm, preferably within +/- 5 mm, more preferably within +/- 3 mm. It will be appreciated that it is also possible that the top surface of the brick is at the same level both over the brick body (outside the aperture) and over the water-permeable sheet (over the aperture). When a top surface of the porous layer is substantially flush with the upper face of the brick body, "substantially flush" includes that the top surface of the porous layer is at the same level as the upper face of the brick body, within +/- 10 mm, preferably within +/- 5 mm, more preferably within +/- 3 mm. It will be appreciated that it is also possible that the top surface of the porous layer is at the same level as the upper face of the brick body.

Preferably, the porous layer is permanently fixed to the brick body. Preferably the water-permeable sheet is (also) permanently fixed to the brick body. In combination with the ease of declogging of the water-permeable brick as described above, a very simple brick can be provided at low cost. Also, the declogging by using a water jet is much more convenient than replacing clogged bricks or parts of clogged bricks.

Optionally, the water-permeable sheet is a non-woven fabric. Alternatively, the water-permeable sheet is a woven fabric. The woven or non-woven fabric is readily available, and provides a simple way of providing the water-permeable sheet for allowing water to pass while closing the aperture against sand, dirt and debris. Optionally, the water-permeable sheet has pore sizes of about 40-150 μm, preferably 50-120 μm. Hence, effectively small particles, such as of sand, dirt and debris, can be

retained by the water-permeable sheet. Thus, no clogging of the water-permeable brick occurs below the water-permeable sheet, and any clogging above the water-permeable sheet (in the porous layer) can easily be undone, e.g. using a water jet.

Optionally, the porous layer is in contact with the water-permeable sheet. Preferably, the porous layer is attached to the water-permeable sheet. Hence, a water-permeable filter unit can be provided.

Optionally, the water-permeable sheet, and optionally the porous layer at least partially, is housed in a filter housing extending in the aperture. Hence, the water-permeable sheet, and optionally the porous layer, can easily be inserted in the aperture.

Optionally, the porous layer includes a grained material, preferably having a grain size of about 0.2 – 2.0 mm, more preferably about 0.5 – 1.8 mm, most preferably about 0.5-1.0 mm. The grained material easily provides the pores between the grains. The grained material can e.g. be a very fine gravel or stone chippings, e.g. of sandstone, limestone, granite or basalt, or (very) coarse sand, having particle sizes of e.g. 0.2-2.0 mm, such as 0.5 – 2.0 mm. Optionally, the grained material is bonded, e.g. using a binder material, such as epoxy. The porous layer can e.g. include 3-10% by weight of binder material. Optionally, the porous layer further includes a fibrous material, such as fibrous wollastonite. The fibrous filler material can increase mechanical properties (tensile, flexural, impact) and improve dimensional stability of the porous layer. The porous layer can for example include 0-10% of fibrous wollastonite, e.g. 2-7 %. The wollastonite fibers can e.g. have a diameter of 5-15 μm, and an aspect ratio of 15-20.

Optionally, the water-permeable brick includes a support structure underneath the water-permeable sheet, supporting the water-permeable sheet. Hence, the water-permeable sheet can easily be positioned near the top of the aperture. Optionally, a water-permeability of the support structure is larger than that of the porous layer. Hence, the support structure does not form a bottle-neck in view of transport of water through

the aperture. Preferably, the water-permeability of the support structure is at least two times larger than that of the porous layer, more preferably at least five times larger. Hence, water-permeability of the brick is mainly limited by the water-permeable sheet and the porous layer. The support structure can e.g. include a mesh structure or a gravel with large grain size of e.g. 4-32 mm.

According to an aspect is provided a method for manufacturing a water-permeable brick. The method includes providing a brick body having an upper face and a lower face, at least one aperture extending though the brick body from the upper face to the lower face. The method includes providing a water-permeable sheet and mounting the water-permeable sheet into or over the at least one aperture. Preferably, the water-permeable sheet is inserted into the aperture without any gaps at the perimeter of the water-permeable sheet. The water-permeable sheet can also be mounted over the aperture without any gaps at the perimeter of the water-permeable sheet. The water-permeable sheet can e.g. be glued to the brick body for sealing any gaps. The method also includes covering the water-permeable sheet with a porous layer having a thickness of between 0.5 – 8 mm, such that a top surface of the brick is substantially flush. Thereto, a top surface of the porous layer can be substantially flush with the upper face of the brick body. Alternatively, the porous layer can be positioned, at least partly, on top of, at least a part of, the upper face of the brick body. The porous layer can be a pre-made layer mounted into or over the aperture. It is also possible that the porous layer is provides as a grout-like substance that is cured while inside or over the aperture.

According to an aspect is provided a method for manufacturing a water-permeable brick. The method includes providing a water-permeable sheet and a porous layer having a thickness of between 0.5 – 8 mm covering the water-permeable sheet. The method also includes forming a brick body, e.g. from a mortar, such that the water-permeable sheet resides in or over an aperture extending though the brick body from an upper face to a lower

face, such that a top surface of the brick is substantially flush. A mould for the brick can include a pen for forming the aperture. It is also possible that the water-permeable sheet and the porous layer are housed in a housing, wherein the housing is positioned in the mould prior to casting the brick. Then, the housing forms the aperture in the brick body during casting. Alternatively, the housing can be mounted, e.g. glued, in the aperture of the brick body after manufacture of the brick body.

Optionally, the method includes providing a support structure underneath the water-permeable sheet. The housing can e.g. form or include the support structure.

It will be appreciated that all features and options mentioned in view of the brick apply equally to the methods, and vice versa. It will also be clear that any one or more of the above aspects, features and options can be combined.

## BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the present invention will now be described in detail with reference to the accompanying drawings in which:

Figure 1 is a schematic representation of a water-permeable brick;

Figure 2 is a schematic representation of a water-permeable brick;

Figure 3 is a schematic representation of a water-permeable brick;

Figure 4 is a schematic representation of a water-permeable brick;

Figure 5 is a schematic representation of a water-permeable brick;

Figure 6 is a schematic representation of a method; and

Figure 7 is a schematic representation of a method.

DETAILED DESCRIPTION

Figures 1 shows a schematic representation of a water-permeable brick 1 in side sectional view. The brick can have standard dimensions, such as approximately 20 cm long, 10 cm wide and 4-10 cm high. However, alternative dimensions are also possible, for example 30×30 cm, 40×40 cm, 50×50 cm, 40×60 cm, 60×90 cm, etc.

The brick 1 includes a brick body 2. The brick body 2 can e.g. be made of concrete, clay, ceramics, natural stone, plastics, or the like. The brick body can be fired if desired. The brick body 2 has an upper face 4 and a lower face 6. The brick body 2 has an aperture 8. The aperture 8 extends though the brick body 2 from the upper face 4 to the lower face 6. Although one aperture 8 is shown in Figure 1, it will be appreciated that the brick body 2 can include more than one aperture 8. In this example, the aperture has a diameter (in top plan view) of about 4 cm. However, other dimensions for the aperture are also possible. As an example, an aperture with a rectangular cross section can be provided, e.g. having a cross section of about 4 × 8 cm. In this example, a water-permeable sheet 10 is placed in the aperture 8. In this example, the sheet 10 is a non-woven sheet of approximately 1.25 mm thick, having pore sizes of 85 ± 26 μm. Generally, the pore size can e.g. be 40 – 150 μm. Generally, the thickness of the water-permeable sheet can e.g. be between 0.5 – 5 mm. Here, the sheet 10 closes the aperture 8 proximate the upper face 4. A perimeter of the sheet 10 abuts against an inside wall of the aperture 8 such that substantially no water can flow between the sheet 10 and the inside wall. A porous layer 12 covers the water-permeable sheet. The porous layer 12 is positioned above the sheet 10, such that an upper side 14 of the porous layer 12 is substantially flush with the upper face 4 of the brick body 2. In this example, a thickness of the porous layer is about 5 mm. Generally, the thickness of the porous layer 12 is between 0.5 – 8 mm. The porous layer 12 in this example is made of a mixture of stone chippings having a grain size of 0.5-1.8 mm (e.g. Wentworth class very coarse sand to very fine gravel) and about 6% by

weight of an epoxy. Here, a water-permeability of the porous layer 12 is larger than a water-permeability of the sheet 10.

Figure 2 shows a schematic representation of a water-permeable brick 1 in side sectional view. The brick 1 of Figure 2 is highly similar to the brick as described in view of Figure 1. In the example of Figure 2, the brick body 2 has a recess 16 where the aperture 8 mouths into the upper surface 4. The recess 16 provides a shoulder for the sheet 10 and/or the porous layer 12 to sit on. Hence, placing the sheet 10 and/or the porous layer 12 can be simplified. Also, the recess 16 can aid in providing a watertight connection between the brick body 2 and the sheet 10 and/or the porous layer 12.

Figure 3 shows a schematic representation of a water-permeable brick 1 in side sectional view. The brick 1 of Figure 3 is highly similar to the brick as described in view of Figure 1. In this example, the brick 1 includes a support structure 18 underneath the sheet 10. In this example the support structure 18 includes a wire mesh having an top surface against which the sheet 10 cab abut (in the figure, a gap is drawn between the sheet 10 and the top surface of the support structure for clarity; it will be appreciated that in practice the sheet 10 can rest on the support structure 18). It will be appreciated that the brick 1 of Figure 3 may be provided with the recess 16.

Figure 4 shows a schematic representation of a water-permeable brick 1 in side sectional view. The brick 1 of Figure 4 is highly similar to the brick as described in view of Figure 3. In this example, the support structure 18 is formed by gravel against which the sheet 10 cab abut. Here a grain size of the gravel is larger than the grain size of the grains of the porous layer 12. In this example, the gravel forming the support structure has a grain size of 4-32 mm, however other dimensions are possible. In this example, the gravel of the support structure is bound by a binder, such as an epoxy, e.g. at 2-6% by weight of the support structure.

In the examples of figures 3 and 4, a water-permeability of the support structure 18 is larger than that of the porous layer 12. Hence, the support structure does not form a bottle-neck in view of transport of water

through the aperture. Preferably, the water-permeability of the support structure is at least two times larger than that of the porous layer, more preferably at least five times larger. Hence, water-permeability of the brick is mainly limited by the water-permeable sheet and the porous layer. It will be appreciated that the brick 1 of Figure 4 may be provided with the recess 16.

In the example of Figure 3, the upper side 14 of the porous layer 12 is slightly raised above the upper face 4 of the brick body 2. It will be appreciated that this can also be applied to the examples of Figures 1, 2, 4 and 5. In the example of Figure 4, the upper side 14 of the porous layer 12 is slightly recessed relative to the upper face 4 of the brick body 2. Here, the mouth of the aperture 8 is slightly beveled. It will be appreciated that this can also be applied to the examples of Figures 1, 2, 3 and 5. The upper side 14 of the porous layer 12 being slightly recessed relative to the upper face 4 of the brick body 2 can help in protecting the porous layer against damage. Generally, the upper side 14 of the porous layer 12 will be substantially flush with the upper face 4 of the brick body 2. The term “subtantially flush” herein means that the upper side 14 of the porous layer 2 is at the same level as the upper face 4 of the brick body 2, within +/- 10 mm, preferably within +/- 5 mm, more preferably within +/- 2 mm. It will be appreciated that it is also possible that the upper side 14 of the porous layer 2 is at the same level as the upper face 4 of the brick body 2, e.g. as shown in Figures 1 and 2. This can also be applied to the examples of Figures 3 and 4.

Figure 5 shows a schematic representation of a water-permeable brick 1 in side sectional view. The brick 1 of Figure 5 is highly similar to the brick as described in view of Figure 1. In this example, the brick 1 includes a filter housing 20. The filter housing 20 in this example houses the sheet 10 and the porous layer 12. Optionally, the filter housing can house the support structure 18. The sheet 10 can be attached to the filter housing 20. The filter housing 20 can easily be positioned inside the aperture 8. It will be appreciated that the filter housing 20 can include a widened portion,

arranged to fit in the recess 16. The filter housing 20 itself can include a recessed portion for receiving the sheet 10 and/or the porous layer 12. In the example of Figure 5, the filter housing houses the sheet and the porous layer. It is also possible that the filter housing only houses the sheet, and optionally the support structure, but not the porous layer prior to insertion in the brick. Then, the porous layer can be applied over the sheet after insertion of the filter housing in the brick.

Preferably, the filter housing is permanently fixed to the brick body. Hence, the risk of the filter housing becoming separated from the brick body is reduced. Also, the low susceptibility to clogging, and the good ability to be declogged, make that removal of the filter housing from the brick body is not necessary for maintanance. The filter housing can be attached to the brick body, e.g. by glue, snap-fitting, or the like.

Figure 6 shows a schematic representation of a method for manufacturing a water-permeable brick 1. In step 100 a brick body 2 is provided having an upper face 4 and a lower face 6, and at least one aperture 8 extending though the brick body 2 from the upper face 4 to the lower face 6. The aperture can e.g. be drilled, or be formed by a mandrel in a mould when casting the brick body. In an optional step 102 a support structure 18 is provided in the aperture 8. The step 102 can include positioning a pre-made support structure 18 in the aperture. The pre-made support structure can e.g. be glued or clipped in place. Alternatively, in step 102 the support structure is provided by inserting a pourable support structure, such as a grained material, into the aperture. The pourable support structure can include a grained material, such as a gravel, stone chippings, glass chippings, plastic grains, or the like, and a binder such as an epoxy. In step 104 a water-permeable sheet 10 is provided in or over the aperture 8. The sheet 10 can e.g. be placed on top of the support structure 18. Alternatively, e.g. in the absence of the support structure, the sheet 10 can be attached to the brick body 2, e.g. to an inner wall of the aperture, to a shoulder of a recess 16 or to the upper face 4 of the brick body. The sheet 10

can e.g. be glued to the brick body 2. Preferably, the water-permeable sheet is mounted to the brick body without any gaps at the perimeter of the water-permeable sheet. In step 106 a porous layer 12 is provided in or over the aperture 8. The step 106 can include positioning a pre-made porous layer 12 in or over the aperture. The pre-made porous layer can e.g. be glued or clipped in place. Alternatively, in step 106 the porous layer is provided by providing a pourable porous layer, such as a grained material, into or over the aperture. The pourable porous layer can include a grained material, such as a gravel, stone chippings, glass chippings, plastic grains, or the like, and a binder such as an epoxy. The grain size of the porous layer is preferably between 0.2 and 2 mm. In step 106, the porous layer is provide having a thickness of between 0.5 – 8 mm. The porous layer is provided such that the top surface of the brick is substantially flush, e.g. such that the top surface 14 of the porous layer 12 is substantially flush with the upper face 4 of the brick body 2. It will be appreciated that it is also possible that the filter housing the sheet, optionally the porous layer, and optionally the support structure is inserted in the aperture of the brick body. The filter housing can e.g. be glued in place. If the filter housing does not include the porous layer prior to insertion in the brick body, the filter housing can be inserted in the aperture, followed by applying the porous layer.

Figure 7 shows a schematic representation of a method for manufacturing a water-permeable brick 1. In optional step a support structure is provided inside a mould. In step 202 a water-permeable sheet is provided on top of the support structure. In step 204 a porous layer having a thickness of between 0.5 – 8 mm is provided on the water-permeable sheet. In step 206 a brick body is formed, e.g. from a mortar, such that the water-permeable sheet and the porous layer reside in an aperture extending though the brick body from an upper face to a lower face, such that a top surface of the porous layer is substantially flush with the upper face of the brick body. The mould for the brick can include a mandrel for forming the aperture below the sheet (e.g. in case of absence of the support structure). It

is also possible that the water-permeable sheet and the porous layer are housed in the filter housing, wherein the housing is positioned in the mould prior to casting the brick. The method can also be reversed in that a porous layer having a thickness of between 0.5 – 8 mm is provided in a mould. The porous layer can be applied locally, or covering the entire bottom of the mould (to become the entire top surface of the brick). Then, a water-permeable sheet is provided on top of the porous layer. Optionally, a support structure is provided on top of the sheet. Then a brick body is formed, e.g. from a mortar, such that the water-permeable sheet resides in or over an aperture extending though the brick body from an upper face to a lower face. The mould for the brick can include a mandrel for forming the aperture below the sheet in case of absence of the support structure. It is also possible that the water-permeable sheet is housed in the filter housing, wherein the housing is positioned in the mould prior to casting the brick.

Herein, the invention is described with reference to specific examples of embodiments of the invention. It will, however, be evident that various modifications and changes may be made therein, without departing from the essence of the invention. For the purpose of clarity and a concise description features are described herein as part of the same or separate embodiments, however, alternative embodiments having combinations of all or some of the features described in these separate embodiments are also envisaged.

In the examples, the porous layer is provided as a grained material layer. It is also possible that the porous layer is a plate-like material with perforations, such as a perforated metal plate, a perforated concrete plate, a perforated natural stone plate or the like.

With respect to the method described in view of Figure 6, it will be appreciated that the order of the steps 102-106 can also be reversed. Also, in view of Figure 6, it will be appreciated that the steps 102-106 can be combined e.g. when inserting the filter housing in the aperture.

In the examples, the porous layer is, at least partially, contained within the aperture. It is possible that alternatively, or additionally, part of the porous layer covers, at least part of, the upper surface of the brick body. It is for instance possible that the porous layer covers the entire upper surface of the brick body. In the examples, the water-permeable sheet is contained within the aperture. It is possible that alternatively part of the water-permeable sheet covers, at least part of, the upper surface of the brick body. It is for instance possible that the water-permeable sheet covers the entire upper surface of the brick body.

However, other modifications, variations, and alternatives are also possible. The specifications, drawings and examples are, accordingly, to be regarded in an illustrative sense rather than in a restrictive sense.

For the purpose of clarity and a concise description features are described herein as part of the same or separate embodiments, however, it will be appreciated that the scope of the invention may include embodiments having combinations of all or some of the features described.

In the claims, any reference sign placed between parentheses shall not be construed as limiting the claim. The word ‘comprising’ does not exclude the presence of other features or steps than those listed in a claim. Furthermore, the words ‘a’ and ‘an’ shall not be construed as limited to ‘only one’, but instead are used to mean ‘at least one’, and do not exclude a plurality. The mere fact that certain measures are recited in mutually different claims does not indicate that a combination of these measures cannot be used to an advantage.

## Claims

1. A water-permeable brick including:

- a brick body having an upper face and a lower face, at least one aperture extending though the brick body from the upper face to the lower face;
- a water-permeable sheet closing the aperture proximate the upper face;
- a porous layer covering the water-permeable sheet, wherein a thickness of the porous layer is between 0.5 – 8 mm, and the brick has a substantially flush top surface.

2. The water-permeable brick of claim 1, wherein the porous layer is permanently fixed to the brick body.

3. The water-permeable brick of claim 1 or 2, wherein the water-permeable sheet is a woven or non-woven fabric.

4. The water-permeable brick of claim 1, 2 or 3, wherein the porous layer is in contact with the water-permeable sheet.

5. The water-permeable brick of any one of claims 1-4, wherein the porous layer includes a grained material, preferably having a grain size of about 0.2 – 2.0 mm.

6. The water-permeable brick of claim 5, wherein the grained material is bonded.

7. The water-permeable brick of any one of claims 1-6, wherein the water-permeable sheet has pore sizes of about 40-150 µm.

8. The water-permeable brick of any one of claims 1-7, wherein the water-permeable sheet, and optionally the porous layer, is housed in a filter housing extending in the aperture.

9. The water-permeable brick of any one of claims 1-8, including a support structure underneath the water-permeable sheet, supporting the water-permeable sheet.

10. The water-permeable brick of claim 9, wherein a water-permeability of the support structure is larger than that of the porous layer, preferably at least two times larger, more preferably at least five times larger.

11. A method for manufacturing a water-permeable brick, including:

- providing a brick body having an upper face and a lower face, at least one aperture extending though the brick body from the upper face to the lower face;
- providing a water-permeable sheet;
- mounting the water-permeable sheet into or over the at least one aperture proximate the upper face; and
- covering the water-permeable sheet with a porous layer having a thickness of between 0.5 – 8 mm, such that a top surface of the brick is substantially flush.

12. A method for manufacturing a water-permeable brick, including:

- providing a water-permeable sheet and a porous layer having a thickness of between 0.5 – 8 mm covering the water-permeable sheet; and
- forming a brick body such that the water-permeable sheet resides in or over an aperture extending though the brick body from an upper face to a lower face, such that a top surface of the brick is substantially flush.

13. The method of claim 11 or 12, including providing a support structure underneath the water-permeable sheet.

14. The method of any one of claims 11-13, including mounting the water-permeable sheet in or over the aperture without any gaps at the perimeter of the water-permeable sheet.

15. The method of any one of claims 11-14, including mounting the porous layer in or over the aperture without any gaps at the perimeter of the porous layer.

16. The method of any one of claims 11-15, including forming a water-permeable brick according to any one of claims 1-10.

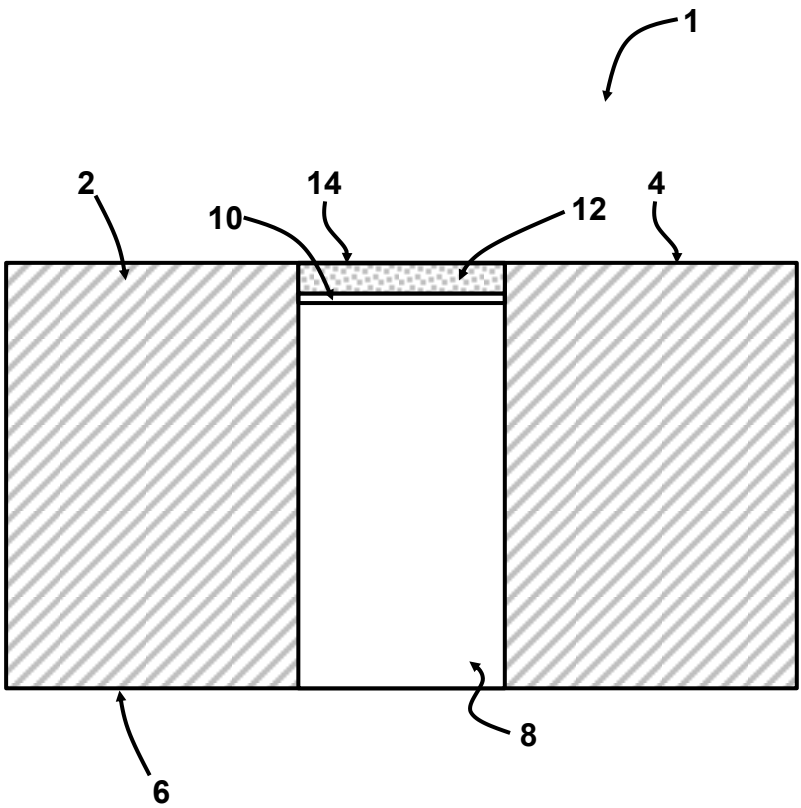


FIG 1

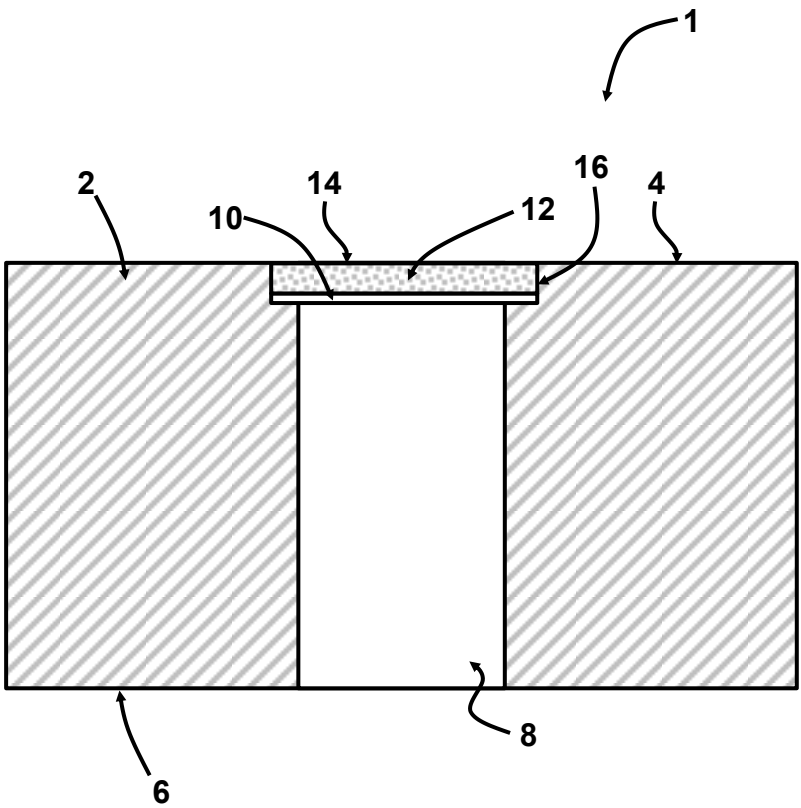


FIG 2

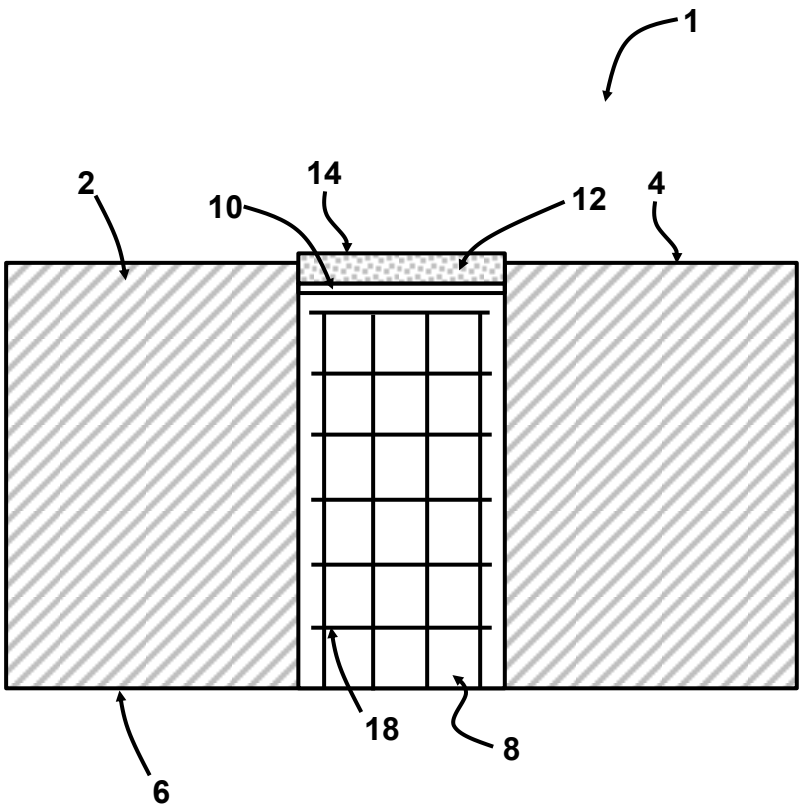


FIG 3

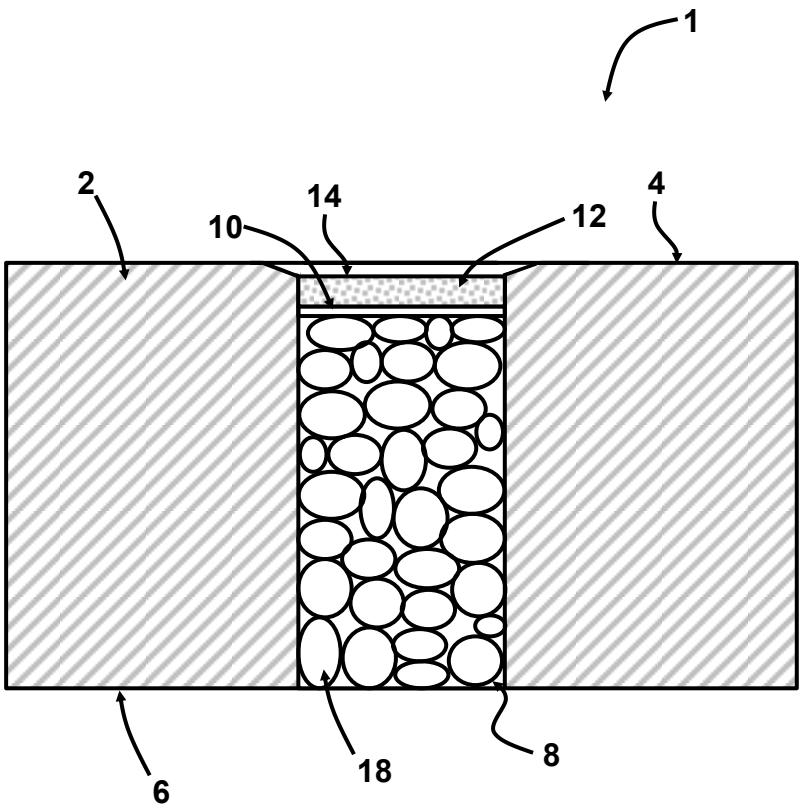


FIG 4

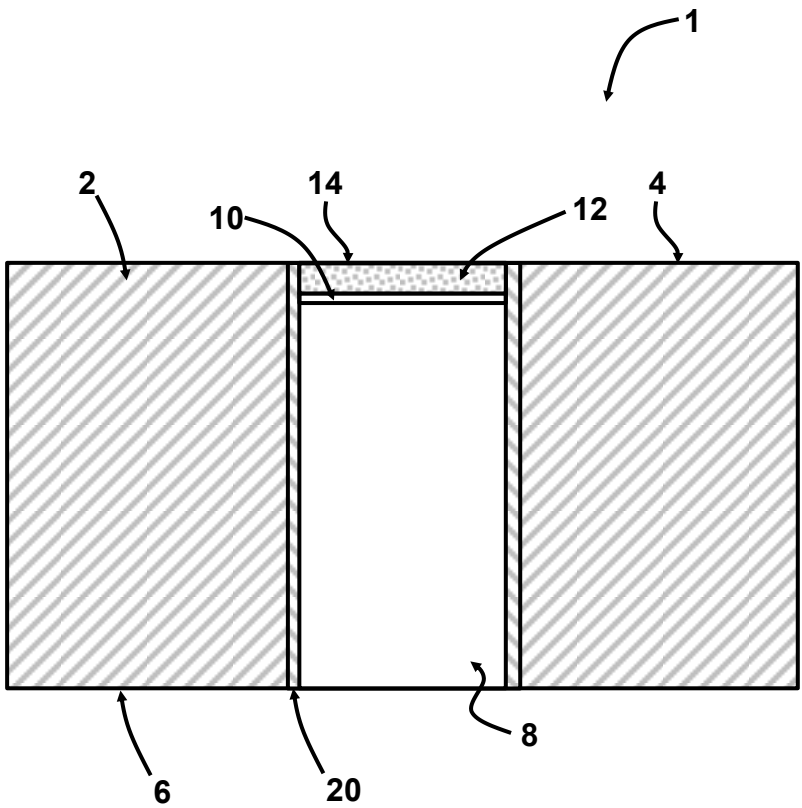


FIG 5

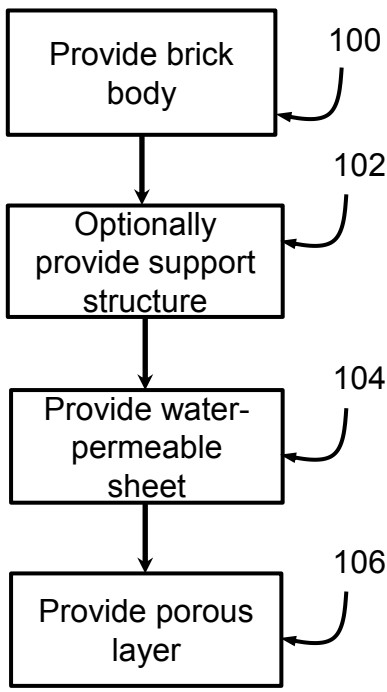
Provide brick body
100
Optionally provide support structure
102
Provide water-permeable sheet
104
Provide porous layer
106

FIG 6

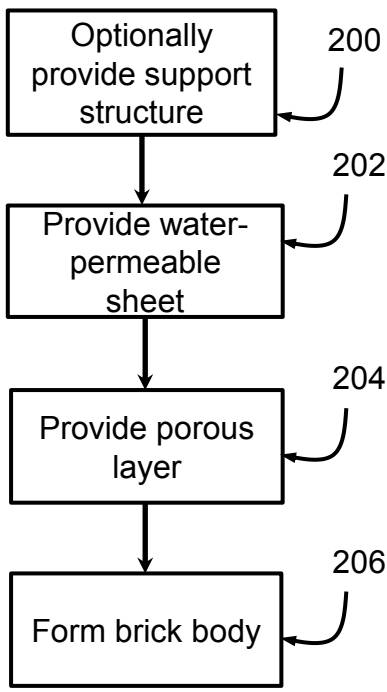
Optionally provide support structure
200
Provide water-permeable sheet
202
Provide porous layer
204
Form brick body
206

FIG 7

Title: Water-permeable brick


## Abstract

The invention relates to a water-permeable brick and a method for making the same. The brick includes a brick body having an upper face and a lower face, at least one aperture extending though the brick body and from the upper face to the lower face. The brick includes a water-permeable sheet closing the aperture proximate the upper face and a porous layer covering the water-permeable sheet, wherein a thickness of the porous layer is between 0.5 – 8 mm, and the brick has a substantially flush a top surface.


+ Fig. 1