

Claims

- 1 A plastic infiltration unit comprising:
- 5 a deck extending in a plane, the deck having a first surface and a second surface, wherein the first surface is arranged to face in a first direction and the second surface is arranged to face in a second direction, wherein the second direction is different to the first direction,
- at least two support structures which are each connected to the deck at the second surface and extend from the second surface,
- 10 wherein each of the at least two support structures include a proximal portion located in a proximal zone with respect to the deck and a distal portion located in a distal zone with respect to the deck, and a reception location located in the proximal zone,
- wherein another identical plastic infiltration unit comprising at least two another identical support structures and the plastic infiltration unit can be placed in an interconnected condition, wherein, in
- 15 the interconnected condition, the at least two another support structures contact the at least two reception locations, so that a load exerted on the plastic infiltration unit is transferred to the identical plastic infiltration unit.
2. The plastic infiltration unit according to claim 1, wherein the second direction is opposite
- 20 to the first direction.
3. The plastic infiltration unit according to claim 1 or claim 2, wherein the support structures are pillar-like support structures.
- 25 4. The plastic infiltration unit according to any of claims 1 to 3, wherein each of the at least two support structures include an interaction structure located in the distal zone.
5. The plastic infiltration unit according to claim 4, wherein, in the interconnected condition, the interaction structures of the plastic infiltration unit are in contact with the reception location in
- 30 the proximal zone of the identical plastic infiltration unit (and vice versa).
6. The plastic infiltration unit according to claim 4 or 5, wherein the interaction structure includes a foot portion of the pillar-like support structure and the reception location includes a

recess, so that in the interconnected condition, the foot portion of the plastic infiltration unit is disposed in the recess of the identical plastic infiltration unit.

7. The plastic infiltration unit according to claim 6, wherein the recess is an opening in the deck which extends at least partially through the deck.

8. The plastic infiltration unit according to claim 7, wherein the recess is an opening in the deck which extends entirely through the deck.

9. The plastic infiltration unit according to any of claims 6 to 8, wherein the dimensions of the foot portion of the plastic infiltration unit match the dimensions of the reception location (recess) of the another identical plastic infiltration unit.

10. The plastic infiltration unit according to any of claims 6 to 9, wherein the foot portion includes at least one edge portion and the recess includes at least one edge portion, so that in the interconnected condition, the at least one edge of the foot portion of the plastic infiltration unit is in contact with at least one edge of the recess of the identical plastic infiltration unit, so that force is transferred between the plastic infiltration unit and the identical plastic infiltration unit (and vice versa).

11. The plastic infiltration unit according to any of claims 3 to 10, wherein the at least two pillar-like support structures comprise: a first pillar-like support structure and a second pillar-like support structure.

12. The plastic infiltration unit according to claim 11, wherein the at least one of the first and second pillar-like support structures includes a hollow leg portion which is configured to fit inside at least one of the first and second pillar-like support structures of the identical plastic infiltration unit in a nested arrangement.

13. The plastic infiltration unit according to claim 11 or 12, wherein the first and second pillar-like support structures are configured so that when one of the plastic infiltration unit and the identical plastic infiltration unit is rotated by 90 degrees and/or 180 degrees with respect to the other, the plastic infiltration unit is stackable on the deck of the identical plastic infiltration unit (and vice versa).

14. The plastic infiltration unit according to any of claims 11 to 13, wherein the first pillar-like support structure comprises a tapered, hollow leg portion and the second pillar-like support structure comprises a ring shaped leg portion, wherein the ring shaped leg portion has a receiving
5 recess extending along the direction of the leg portion, so that in the interconnected condition, the tapered, hollow leg portion of the identical plastic infiltration unit is received by the recess of the identical plastic infiltration unit.
15. The plastic infiltration unit according to any of claims 11 to 154, wherein at least one of the
10 first and second pillar-like support structure comprises a plurality of leg portions arranged in a cluster around a (imaginary) central longitudinal axis extending in a direction in which the at least two support structures extend.
16. The plastic infiltration unit according to claim 14 or 15, wherein each of the plurality of leg
15 portions has a (imaginary) central longitudinal axis in the direction in which the at least two support structures extend.
17. The plastic infiltration unit according to claim 15 or 16, wherein each cluster has its own
(imaginary) central axis, respectively.
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18. The plastic infiltration unit according to any of claims 15 to 17, wherein each cluster comprises 2 or more leg portions.
19. The plastic infiltration unit according to any of claims 14 to 18, wherein the leg portions are
25 arranged equally spaced around the (imaginary) central longitudinal axis or unequally spaced around the (imaginary) central longitudinal axis.
20. The plastic infiltration unit according to any of claims 1 to 19, wherein at least one of the first and second pillar-like support structure comprises a plurality of leg portions arranged in a
30 cluster around the (imaginary) central longitudinal axis extending in the direction in which the at least two pillar-like support structures extend.
21. A plastic infiltration unit according to any of claims 1 to 20, wherein the plastic infiltration unit is configured so that it can be put in a nested condition within an identical plastic infiltration

unit, when the orientation of both infiltration units is the same (equal), so that each of the pillar-like support structures of the infiltration unit is aligned to fit inside the respective each pillar-like structure of the identical infiltration unit.

5 22. The plastic infiltration unit according to any preceding claim, wherein each of the at least two support structures comprises a plurality of pillars, so that in the interconnected condition a grouped set of pillars has double the number of pillars between two decks than for either the plastic infiltration unit or the identical plastic infiltration unit.

10 23. The plastic infiltration unit according to any of claims 14 to 22, wherein the plurality of leg portions is equal to two or more leg portions.

15 24. The plastic infiltration unit according to any preceding claim, wherein each of the at least two support structures define, in the plane of the deck, a support region which includes, in the plane of the deck, the region or regions, respectively, where one or more pillar-like structures extend from the deck.

20 25. The plastic infiltration unit according to any preceding claim, wherein the support structures in the proximal region have one of a circular, hexagonal and fluted cross-section and in the distal region have at least one of a circular, star shaped and fluted cross-section, respectively.

26. The plastic infiltration unit according to any preceding claim, wherein the support structures are conical.

25 27. The plastic infiltration unit according to any of claims 4 to 26, wherein the interaction structure is a foot portion of the pillar-like structure.

30 28. The plastic infiltration unit according to any of claims 24 to 27, wherein, in the interconnected condition, the foot portion of the plastic infiltration unit is disposed in the recess portion of the another identical plastic infiltration unit, in the support region.

29. The plastic infiltration unit according to any preceding claim, wherein the at least two support structures extend in a direction from the second surface which is perpendicular to plane in which the deck extends.

30. The plastic infiltration unit according to any preceding claim, wherein in the interconnected condition, the deck of the plastic infiltration unit and the another deck of the another identical plastic infiltration unit are aligned in the direction in which the support structures extend.

5 31. The plastic infiltration unit according to any preceding claim, wherein the interaction structure extends beyond the deck.

32. The plastic infiltration unit according to any of claims 3 to 31, wherein the interaction structure comprises a hollow containment structure which extends below the deck in the direction
10 of the extension of the support structures, the hollow containment structure is arranged so that the foot portion of the another infiltration unit is received at a location away from the underside of the deck.

33. The plastic infiltration unit according to any of claims 3 to 32, wherein the interaction
15 structure is arranged so that the location at which the foot portion of the another infiltration unit is received is arranged, so that the height of the plastic infiltration unit and the another identical plastic infiltration unit in the interconnected condition is variable.

34. A plurality of plastic infiltration units comprising a plastic infiltration unit according to any
20 preceding claim and at least one another (second) plastic infiltration unit according to any preceding claim.

35. A system (an assembly) comprising at least two plastic infiltration units, the system
25 including a first and a second plastic infiltration unit, wherein each plastic infiltration unit comprises:

a deck extending in a plane, the deck having a first and a second surface, wherein the first surface is arranged to face in a first direction and the second surface is arranged to face in a second direction, wherein the second direction is different, preferably, opposite to the first direction,
at least two support structures which are each connected to the deck at the second surface and
30 extend from the second surface,

wherein each of the at least two support structures include a proximal portion located in a proximal zone with respect to the deck and a distal portion located in a distal zone with respect to the deck, and a reception location located in the proximal zone,

the first plastic infiltration and the second plastic infiltration unit can be placed in an interconnected condition, wherein, in the interconnected condition, the at least two support structures of the second plastic infiltration unit contact the at least two reception locations of the first plastic infiltration unit, so that a load exerted on the first plastic infiltration unit is transferred to the second plastic infiltration unit.

36. The system according to claim 35, wherein the first and the second plastic infiltration units are identical.

37. A plastic infiltration unit comprising:
a deck extending in a plane, the deck having a first surface and a second surface, wherein the first surface is arranged to face in a first direction and the second surface is arranged to face in a second direction, wherein the second direction is different to the first direction,
at least two pillar-like support structures which are each connected to the deck at the second surface and extend from the second surface,
wherein each of the at least two pillar-like support structures has a (imaginary) central longitudinal axis and includes at least two pillar-like supports,
wherein another identical plastic infiltration unit comprising at least two another pillar-like support structures and the plastic infiltration unit can be placed in an interconnected condition, wherein, in the interconnected condition, the (imaginary) central longitudinal axes of the at least two pillar-like support structures and the at least two another pillar-like support structures are aligned.

38. The plastic infiltration unit according to claim 37, wherein the second direction is opposite to the first direction.

39. The plastic infiltration unit according to claim 37 or 38, wherein the at least two pillar-like support structures comprise: a first pillar-like support structure and a second pillar-like support structure.

40. The plastic infiltration unit according to claim 39, wherein at least one of the first and second pillar-like support structures includes a hollow leg portion which is configured to fit inside at least one of the first and second pillar-like support structures of the identical plastic infiltration unit in a nested arrangement.

41. The plastic infiltration unit according to claims 37 to 40, wherein the first and second pillar-like support structures are configured so that when one of the plastic infiltration unit and the identical plastic infiltration unit is rotated by 90 degrees and/or 180 degrees with respect to the other around an axis extending through a central region of the plastic infiltration unit in a direction substantially parallel to the direction in which the first and second pillar-like support structures extend, the plastic infiltration unit is stackable on the deck of the identical plastic infiltration unit (and vice versa).
42. The plastic infiltration unit according to any of claims 37 to 41, wherein the first pillar-like support structure and the second pillar-like support structure have the same draft angle.
43. The plastic infiltration unit according to any of claims 37 to 42, wherein the first pillar-like support structure and the second pillar-like support structure have different draft angles, respectively, and wherein, in a stacked position, the first and second pillar-like support structures of the another plastic infiltration unit and the same draft angle as the first and second pillar-like structures of the plastic infiltration unit, respectively.
44. The plastic infiltration unit according to any of claims 37 to 43, wherein the support structures in the proximal region have one of a circular, hexagonal and fluted cross-section and in the distal region have at least one of a circular, star shaped and fluted cross-section, respectively.
45. The plastic infiltration unit according to any of claims 37 to 44, wherein the first pillar-like support structure and the second pillar-like support structure are conical.
46. The plastic infiltration unit according to any of claims 37 to 45, wherein at least one of the first and second pillar-like support structure comprises a plurality of leg portions arranged in a cluster around the (imaginary) central longitudinal axis extending in the direction in which the at least two pillar-like support structures extend.
47. The plastic infiltration unit according to claim 46, wherein the first and second pillar-like support structures have a common longitudinal axis around which the plurality of leg portions are arranged in a cluster, the common axis extending in the direction in which the at least two pillar-like support structures extend.

48. The plastic infiltration unit of claim 46 or 47, wherein each of the plurality of leg portions has a (imaginary) central longitudinal axis in a direction in which the at least two support structures extend.

5 49. The plastic infiltration unit according to any of claims 46 to 48, wherein the leg portions are arranged equally spaced around the (imaginary) central longitudinal axis.

50. The plastic infiltration unit according to any of claims 46 to 49, wherein the leg portions are arranged non-equally spaced around the (imaginary) central longitudinal axis (common axis).

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51. A plastic infiltration unit according to any of claims 37 to 50, wherein the plastic infiltration unit is configured so that it can be put in a nested condition with an identical plastic infiltration unit, when the orientation of both infiltration units is the same (equal), so that each of the pillar-like support structures of the infiltration unit is aligned to fit inside the respective each pillar-like structure of the identical infiltration unit.

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52. The plastic infiltration unit according to any preceding claim, wherein each of the at least two pillar-like support structures comprises a plurality of pillars, so that in the interconnected condition a grouped set (cluster) of pillars has double the number of pillars between two decks compared with the number of pillars extending from the deck of the plastic infiltration unit.

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53. The plastic infiltration unit according to any of claims 37 to 52, wherein the plurality of leg portions is equal to two or more leg portions, preferably 2, 3 or 4.

25 54. The plastic infiltration unit according to any preceding claim, wherein each of the at least two support structures define, in the plane of the deck, a support region which encloses, in the plane of the deck, the areas where the at least two pillar-like structures extend from the deck.

55. The plastic infiltration unit according to any of preceding claims 37 to 54, wherein each of the pillar-like structures comprises an interaction structure, wherein the interaction structure is a foot portion of the pillar-like structure.

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56. The plastic infiltration unit according to claim 55, wherein, in the interconnected condition, the foot portion of the plastic infiltration unit is disposed in the recess portion of the another

identical plastic infiltration unit, in the support region, so that in the interconnected condition, the foot portion of the plastic infiltration unit is disposed in the recess of the identical plastic infiltration unit.

5 57. The plastic infiltration unit according to claim 56, wherein the recess is an opening in the deck which extends at least partially through the deck.

58. The plastic infiltration unit according to claim 57, wherein the recess is an opening in the deck which extends entirely through the deck.

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59. The plastic infiltration unit according to any of claims 56 to 58, wherein the dimensions of the foot portion of the plastic infiltration unit match the dimensions of the reception location (recess) of the another identical plastic infiltration unit.

15 60. The plastic infiltration unit according to any of claims 37 to 59, wherein in the interconnected condition, the foot portions of the another identical plastic infiltration unit are disposed between the leg portions of the plastic infiltration unit.

20 61. The plastic infiltration unit according to any of claims 37 to 60, wherein the plastic infiltration unit is configured to be nested within the another identical plastic infiltration unit, and is configured so that when one of either the plastic infiltration unit or the another identical plastic infiltration unit is rotated by 180 degrees, the plastic infiltration unit can be stacked on the another deck of the another identical plastic infiltration unit and when one of either the plastic infiltration unit or the another identical plastic infiltration unit is rotated by 180 degrees and is inverted, the
25 plastic infiltration unit and the another identical plastic infiltration unit are disposed in the interconnected condition.

30 62. The plastic infiltration unit according to any of claims 37 to 61, wherein, in the plane of the deck, the plastic infiltration unit includes a first sector (half) in which a first set of clusters are disposed and a second sector (half) adjacent to the first sector (half) in the plane of the deck in which a second set of clusters are disposed.

63. The plastic infiltration unit according to claim 62, wherein the first set of clusters includes 2, 4, 6 or 8 clusters and wherein the second set of clusters includes 2, 4, 6 or 8 clusters, respectively.

64. The plastic infiltration unit according to claim 62 or 63, in which the first set of clusters are arranged in a similar (same) manner as the second set of clusters.

5 65. The plastic infiltration unit according to any of claims 62 to 64, in which, in the plane of the deck, the first four clusters are rotated by 45 degrees with respect to the second four clusters.

66. The plastic infiltration unit according to any of claims 62 to 65, wherein, the arrangement of the first set of clusters in the first sector is the same as the arrangement of the second set of clusters in the second sector.
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67. The plastic infiltration unit according to any of claims 37 to 66, wherein, in the plane of the deck, the plastic infiltration unit includes a first sector in which a first set of clusters are disposed, a second sector adjacent to the first sector in the plane of the deck in which a second set of clusters are disposed, a third sector adjacent to the second sector in the plane of the deck in which a third set of clusters are disposed and a fourth sector adjacent to the third sector in the plane of the deck in which a fourth set of clusters are disposed.
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68. The plastic infiltration unit according to claim 67, wherein the first set of clusters and the third set of clusters are arranged in a similar manner and the second set of clusters and the fourth set of clusters are arranged in a similar manner.
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69. The plastic infiltration unit according to claim 68, wherein the first and third set of clusters are rotated with respect to the second and fourth set of clusters by for example, 90 degrees when each set of clusters comprises 2 pillar-like support structures, 30 degrees when each set of clusters comprises 3 pillar-like support structure and 45 degrees when each set of clusters comprises 4 pillar-like support structures.
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70. The plastic infiltration unit according to any of claims to any of claims 62 to 69, wherein each set of clusters includes at least two pillar-like support structures, for example, two, three, four or twelve.
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71. The plastic infiltration unit according to any of claims 62 to 70, wherein each set of clusters includes the same number of pillar-like support structures.

72. The plastic infiltration unit according to any of claims 62 to 71, wherein each set of clusters includes a non-equal number of pillar-like support structures.

5 73. The plastic infiltration unit according to any preceding claim, wherein at least one of the support structures, the pillar-like structures and legs have a draft angle, such that in the interconnected condition there is a gap between at least one of the support structures, the pillar-like structures and the legs of the plastic infiltration unit and the another identical plastic infiltration unit.

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74. The plastic infiltration unit according to any preceding claim, wherein at least one of the support structures, the pillar-like structures and legs have a draft angle, such that in the interconnected condition at least one of the support structures, the pillar-like structures and the legs of the plastic infiltration unit are in contact with at least one of the support structure, the pillar-like structures and the legs of the another identical plastic infiltration unit.

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75. A plurality of plastic infiltration units comprising a plastic infiltration unit according to any preceding claim and at least one another (second) plastic infiltration unit according to any preceding claim.

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76. A system (an assembly) comprising at least two plastic infiltration units, the system including a first and a second plastic infiltration unit, wherein each plastic infiltration unit comprises: a deck extending in a plane, the deck having a first surface and a second surface, wherein the first surface is arranged to face in a first direction and the second surface is arranged to face in a second direction, wherein the second direction is different to the first direction,
25 at least two pillar-like support structures which are each connected to the deck at the second surface and extend from the second surface,
wherein each of the at least two pillar-like support structures has a (imaginary) central longitudinal axis and includes at least two pillar-like supports,
30 wherein the first and second plastic infiltration units can be placed in an interconnected condition, wherein, in the interconnected condition, the (imaginary) central longitudinal axes of the at least two pillar-like support structures of the first plastic infiltration unit and the at least two pillar-like support structures of the second plastic infiltration unit are aligned.

77. The system according to claim 76, wherein the first and the second plastic infiltration units are identical.

78. A geotextile or geomembrane retention clip for retaining a geotextile or a geomembrane on a plastic infiltration unit, the retention clip comprising: an elastically deformable retaining hook which is deformable to allow the geotextile or geomembrane to be inserted under the deformable hook and to retain the geotextile or geomembrane once it has been inserted.

79. The geotextile or geomembrane retention clip according to claim 78, further comprising a deformable portion.

80. The geotextile or geomembrane retention clip according to claim 78 or 79, wherein the deformable retaining hook comprises at least one tooth portion, preferably two or three teeth portions which extend from the deformable portion.

81. The geotextile or geomembrane retention clip according to any of claims 78 to 80, further comprising a support portion arranged to support a geotextile or geomembrane when it is inserted into the retention clip.

82. The geotextile or geomembrane retention clip according to claim 81, wherein the support extends from the deformable portion and defines a support region in which the geotextile or geomembrane is supported.

83. The geotextile or geomembrane retention clip according to any of claims 78 to 82, wherein the hook is configured so that it extends into the support region.

84. The geotextile or geomembrane retention clip according to any of claims 78 to 83, wherein the deformable portion, the hook and the support portion are arranged such that when a geotextile or geomembrane is inserted into the clip, the clip deforms to allow the geotextile or geomembrane to be inserted and then exerts a force on the geotextile or geomembrane located between the hook and the support portion, to retain the geotextile or geomembrane in position on the support portion.

85. The geotextile or geomembrane retention clip according to any of claims 78 to 84, wherein the hook comprises at least two teeth portions which are arranged so that one is positioned on either side of the support portion.

5 86. The geotextile or geomembrane retention clip according to any of claims 78 to 85, wherein the retaining hook is angled with respect to a direction of insertion of the geotextile or geomembrane so that when the geotextile or geomembrane is inserted in the direction of insertion into the clip, the deformable portion deforms to open the clip to allow the geotextile or geomembrane to be inserted into the clip and does not open when a force is applied in a direction
10 opposite to the insertion direction.

87. The geotextile or geomembrane retention clip according to any of claims 78 to 86, wherein the retaining hook has a negative angle to retain the geotextile in the clip once it has been inserted.

15 88. The geotextile or geomembrane retention clip according to any of claims 78 to 87, wherein in the case where the hook comprises two teeth portions, one tooth portion is arranged to extend from the at least one deformable portion on either sides of the deformable portion or in the case where the hook comprises two deformable portions, one tooth portion is arranged to extend from each of the two deformable portions.

20 89. The geotextile or geomembrane retention clip according to any of claims 78 to 88, wherein the geotextile or geomembrane retention clip is configured so that a reaction force is downward.

90. The geotextile or geomembrane retention clip according to any of claims 78 to 89, wherein
25 the retention clip is at least one of a sheet metal clip and an injection moulded clip.

91. The geotextile or geomembrane retention clip according to any of claims 78 to 90, wherein the geotextile or geomembrane retention clip is a single component.

30 92. A plastic infiltration unit comprising:
a surface on which a geotextile is to be disposed,
and

a geotextile or geomembrane retention clip for retaining the geotextile on the surface according to any of claims 78 to 91, wherein the geotextile retention clip is integrally formed in the plastic infiltration device.

5 93. The plastic infiltration unit according to claim 92, wherein the plastic infiltration device comprises: a deck extending in a plane, the deck having a first surface and a second surface, wherein the first and second surfaces oppose one another, wherein the geotextile is to be disposed on the first surface.

10 94. The plastic infiltration unit according to claim 93, wherein the geotextile retention clip is integrally formed in the first surface.

95. The plastic infiltration unit according to claim 94, wherein an upper surface of the geotextile retention clip is flush with the first surface.

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96. A plastic side plate for installation on a plastic infiltration unit, the plastic side plate comprising:

a main body,

a connector for connecting the side plate to a plastic infiltration unit,

20 an opening for receiving a pipe, and

a pipe stopper for limiting the extent to which the pipe is insertable into the plastic infiltration unit, wherein the pipe stopper is integrally formed in the plastic side plate.

25 97. The plastic side plate according to claim 96, wherein the pipe stopper is detachably connected to the main body with at least one connecting branch, wherein the at least one connecting branch is configured to detach from the main body when the pipe is inserted into the opening, releasing the pipe stopper from the main body in the direction in which the pipe is insertable.

30 98. The plastic side plate according to claim 96 or 97, wherein the pipe stopper is detachably connected at one or two detaching locations to allow the pipe stopper to rotate with respect to the main body.

99. The plastic side plate according to any of claims 96 to 98, wherein the pipe stopper comprises:
a film hinge and a retention hook, wherein the retention hook is arranged to pivot around the film hinge, so that when the pipe is inserted into the opening the retention hook is arranged to retain
5 the pipe.
100. The plastic side plate according to any of claims 96 to 99, wherein the plastic side plate is one of injection moulded, rotomoulded, extruded and blowmoulded.
- 10 101. The plastic side plate according to any of claims 96 to 100, wherein the pipe stopper comprises a guide portion located between the film hinge and the retention hook, wherein the guide portion is dimensioned to guide the pipe towards the retention hook as the pipe is inserted into the opening.
- 15 102. The plastic side plate according to any of claims 96 to 101, wherein the pipe stopper has a starting position and a stop position.
103. The plastic side plate according to claim 102, wherein in the starting position, the pipe stopper is aligned with the main body.
- 20 104. The plastic side plate according to claim 102 or 103, wherein in the stop position, the pipe stopper is pivoted with respect to the main body.
105. The plastic side plate according to any of claims 96 to 104, wherein when the pipe is
25 inserted into the opening the retention hook is arranged to pivot to reach the stop position.
106. A plastic side plate for installation on a plastic infiltration unit, the plastic side plate comprising:
a main body, wherein the main body comprises an opening,
30 and at least one cut-out for receiving at least one attachment part of a connection adapter to be attached to the plastic side plate, and at least one guide part, wherein the at least one cut-out and the at least one guide part are arranged in the vicinity of the opening so that the connection adapter is rotatably attachable to the plastic side plate.

107. The plastic side plate according to claim 106, wherein the at least one cut-out and the at least one guide part are arranged so that when the attachment part is introduced into the cut-out and rotated with respect to the plastic side plate, the connection adapter is received and guided to a position in which the connection adapter is attached to the plastic side plate.

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108. A connector adapter for connection to a plastic side plate, for example, the plastic side plate according to any of claims 96 to 107, the connection adapter comprising an attachment part for attaching the connection adapter to the plastic side plate, wherein the attachment part is arranged to be received at a cut out and guided to a stop position by a guiding part when the connector adapter is rotated with respect to the plastic side plate.

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109. The connector adapter according to claim 108, wherein the attachment part comprises a groove for receiving the guiding part.

110. A middle plate for a plastic infiltration unit, the middle plate extending in a plane, the middle plate having a first surface and a second surface, wherein the first and second surfaces are different from one another, wherein the first surface comprises a plurality of first reception zones and the second surface comprises a plurality of second reception zones, wherein the first reception zones are configured to receive a first plurality of pillar-like support structures having a central axis of a first plastic infiltration unit and the second reception zones are configured to receive a second plurality of pillar-like support structures having a central axis of a second plastic infiltration unit, so that the central axes of the first and second plurality of pillar-like support structures are aligned.

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111. The middle plate according to claim 110, wherein a force exerted on the first plastic infiltration unit is transferred through the central axes of the first plurality of pillar-like support structures to the central axes of the second plurality of pillar-like support structures.

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112. The middle plate according to claim 110 or 111, wherein the middle plate has a thickness in a direction perpendicular to the plane that is substantially the same as the thickness of a deck of the plastic infiltration unit.

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113. The middle plate according to any of claims 110 to 112, wherein each of the first plurality of pillar-like structures and each of the second plurality of pillar-like structures comprises a first and second plurality of foot portions, respectively, wherein the first and second plurality of foot

portions have a length in the direction in which the first and second plurality of pillar-like structures extend, wherein the middle plate has a thickness in the direction in which the first and second plurality of pillar-like structures extend that is at least two times the length of the first and second plurality of foot portions.

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114. A system (an assembly) comprising a middle plate of any of claims 110 to 113 and a first and a second plastic infiltration unit of any according to any of claims 1 to 72, wherein in an assembled state the second plastic infiltration unit is in an inverted configuration with respect to the first plastic infiltration unit and wherein the middle plate is disposed between the first and the second plastic infiltration unit.

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115. The system according to claim 114, comprising a plane of symmetry extending through the plane of the middle plate.

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116. The system according to any of claims 110 to 115, wherein the first and second surfaces oppose one another.