Claims

1. An arrangement comprising a first and a second Prefabricated Prefinished Volumetric Construction (PPVC) ~~connector~~ module arranged adjacent to each other, wherein the first PPVC module comprises exposed first anchors attached to a wall of the first PPVC module and the second PPVC module comprises exposed second anchors attached to a wall of the second PPVC module, the arrangement comprising:

at least two anchor pairs that are each aligned in a non-overlapping manner such that an opening is formed between each of the anchor pairs, whereby each aligned anchor pair comprises an exposed first anchor of the first PPVC module and an exposed second anchor of the second PPVC module;

a vertical rebar comprising hook anchors attached along a length of the vertical rebar, whereby each hook anchor is configured to engage with each aligned anchor pair to connect the first and second PPVC modules,

wherein the vertical rebar is configured to be:

inserted through the openings between the aligned anchor pairs until each hook anchor of the vertical rebar is positioned above each aligned anchor pair; and

rotated about a longitudinal axis of the vertical rebar until each hook anchor is able to engage with each aligned anchor pair when the vertical rebar is inserted further through the openings.

~~a connecting element;~~

~~a plurality of first anchors anchored to a first PPVC module;~~

~~a plurality of second anchors anchored to a second PPVC module arranged apart from the plurality of first anchors wherein the PPVC connector is adapted to be installed to the first and second PPVC modules such that the connecting element engages the first and second anchors preventing the first and second PPVC modules from moving apart from each other.~~

~~2. The PPVC connector according to claim 1 wherein a part of each first anchor is embedded into the first PPVC module with another part of the first anchor exposed at the recess of the first PPVC module and a part of each second anchor is embedded into the second PPVC module with another part of the second anchor exposed at the recess of the second PPVC module.~~

~~3. The PPVC connector according to claim 1 wherein the recess of the first PPVC module is provided on a grouting surface of the first PPVC module and the recess of the second PPVC module is provided on a grouting surface of the second PPVC module.~~

~~4~~2. The ~~PPVC connector~~arrangement according to claim 1 wherein each of the first and second PPVC modules comprises a thin half-leaf wall with thickness of at least 80mm measured between opposing surfaces of each of the first and second PPVC modules.

~~5. The PPVC connector according to claim 1 wherein the connecting element comprises:~~

~~a rebar having a length; and~~

~~a plurality of hook anchor coupled to the rebar, the plurality of hook anchor are spared apart from each other.~~

~~6~~3. The arrangement ~~PPVC connector~~ according to claim 1 wherein each hook anchor ~~has~~ comprises a base, an extension on an end of the base and another extension on the other end of the base, whereby the extensions are configured to engage with the aligned anchor pairs, and whereby a gap between the walls of the first and second PPVC modules is equal or more than the length of the base of the hook anchor. ~~having a length that determines a grouting width between the first and second PPVC modules.~~

~~7~~4. The arrangement ~~PPVC connector~~ according to claim ~~1~~3 wherein ~~each hook anchor has a pair of~~the extensions extend~~ing~~ from ~~both~~ the ends of the base to form a hook-like grip for engaging the first and second anchors.

~~8~~5. The arrangement ~~PPVC connector~~ according to ~~anyone of~~ claims ~~5~~3~~-7~~ or 4, wherein the hook anchor ~~is~~ comprises a U shaped fork.

6. A method for connecting

a first and a second Prefabricated Prefinished Volumetric Construction (PPVC) module to each other, whereby the two modules are arranged adjacent to each other, the method comprising:

providing exposed first anchors attached to a wall of the first PPVC module and providing exposed second anchors attached to a wall of the second PPVC module;

aligning at least two anchor pairs in a non-overlapping manner such that an opening is formed between each of the anchor pairs, whereby each aligned anchor pair comprises an exposed first anchor of the first PPVC module and an exposed second anchor of the second PPVC module;

providing a vertical rebar comprising hook anchors attached along a length of the vertical rebar, whereby each hook anchor is configured to engage with each aligned anchor pair to connect the first and second PPVC modules;

inserting the vertical rebar through the openings between the aligned anchor pairs until each hook anchor of the vertical rebar is positioned above each aligned anchor pair; and

rotating the vertical rebar about a longitudinal axis of the vertical rebar until each hook anchor is able to engage with each aligned anchor pair when the vertical rebar is inserted further through the openings.

7. The method according to claim 6 wherein each of the first and second PPVC modules comprises a thin half-leaf wall with thickness of at least 80mm measured between opposing surfaces of each of the first and second PPVC modules.

8. The method according to claim 7 wherein each hook anchor comprises a base, an extension on an end of the base and another extension on the other end of the base, whereby the extensions are configured to engage with the aligned anchor pairs, and whereby a gap between the walls of the first and second PPVC modules is equal or more than the length of the base of the hook anchor.

9. The method according to claim 8 wherein the extensions extend from the ends of the base to form a hook-like grip for engaging the first and second anchors.

10. The method according to claims 8 or 9, wherein the hook anchor comprises a U shaped fork.

11. The method according to claim 6 further comprising the step of:

providing a longitudinal recess along the wall of the first PPVC module, wherein the exposed first anchors are provided within the recess; and

providing a longitudinal recess along the wall of the second PPVC module, wherein the exposed second anchors are provided within the recess.

12. The method according to claim 11 further comprising the step of:

filling the longitudinal recess of the first and second PPVC module with grout.

~~9. A composite Prefabricated Prefinished Volumetric Construction (PPVC) wall comprising:~~

~~a first PPVC module and a second PPVC module, each comprising a thin half-leaf wall having a grouting surface and an external surface and at least one recess defined on the grouting surface;~~

~~a PPVC connector comprising:~~

~~a connecting element;~~

~~a plurality of first anchors anchored to the recess of the first PPVC module;~~

~~a plurality of second anchors anchored to the recess of the second PPVC module and arranged apart from the plurality of first anchors wherein the connecting element is adapted to engage the first and second anchors preventing the first and second PPVC modules from moving apart from each other.~~

~~10. The composite PPVC wall according to claim 8 wherein a part of each first anchor is embedded into the first PPVC module with another part of the first anchor exposed at the recess of the first PPVC module and a part of each second anchor is embedded into the second PPVC module with another part of the second anchor exposed at the recess of the second PPVC module.~~

~~11. The composite PPVC wall according to any one of claims 9-10 wherein the connecting element comprises:~~

~~a rebar having a length; and~~

~~a plurality of hook anchor coupled to the rebar, the plurality of hook anchor are spared apart from each other.~~

~~12. The composite PPVC wall according to claim 11 wherein each hook anchor has a base having a length that determines a grouting width between the first and second PPVC modules.~~

~~13. The composite PPVC wall according to claim 12 wherein each hook anchor has a pair of extensions extending from both ends of the base to form a hook-like grip for engaging the first and second anchors.~~

~~14. The composite PPVC wall according to anyone of claims 11-13 wherein the hook anchor is a U shaped fork.~~

~~15. A method of constructing the composite PPVC wall of any one of claims 9-14 comprising:~~

~~arranging the first and second PPVC modules such that the respective recesses are facing each other;~~

~~inserting the rebar through an opening formed by the respective recesses;~~

~~rotating the rebar by approximately 90 degrees;~~

~~lowering the rebar until the hook anchor engage the first and second anchors; and~~

~~filling a gap defined between the grouting surfaces with grout.~~