CLAIMS

[Claim 1] A method for manufacturing a concrete structure, comprising:

a mold installation step of installing a formwork for concrete placement;

a placement step of performing placement of concrete in a state where a curing sheet is attached to an inner surface of the formwork; and,

a demolding step of removing the formwork after placement of the concrete,

wherein a contact angle of a contact surface of the curing sheet for use in the placement step with water is 50 degrees or more, the contact surface facing the concrete.

[Claim 2] The method for manufacturing a concrete structure according to claim 1, further comprising a curing sheet attachment step of attaching a curing sheet inside the formwork in advance before the mold installation step.

[Claim 3] The method for manufacturing a concrete structure according to claim 1 or 2, further comprising a curing step of curing the concrete structure for a predetermined period with the curing sheet left on an attaching surface of the concrete structure, after the demolding step.

[Claim 4] The method for manufacturing a concrete structure according to any one of claims 1 to 3, wherein the contact angle of the contact surface of the curing sheet for use in the placement step with water is 69 degrees or more.

[Claim 5] The method for manufacturing a concrete structure according to claim 4, wherein the contact angle of the contact surface of the curing sheet for use in the placement step with water is 80 degrees or more.

[Claim 6] The method for manufacturing a concrete structure according to claim 5, wherein the contact angle of the contact surface of the curing sheet for use in the placement step with water is 90 degrees or more.

[Claim 7] The method for manufacturing a concrete structure according to any one of claims 1 to 6, wherein the curing sheet for use in the placement step is a sheet comprising polypropylene, polyethylene terephthalate, polyvinylidene chloride or polyvinyl chloride.

[Claim 8] The method for manufacturing a concrete structure according to any one of claims 1 to 7, wherein a thickness of the curing sheet for use in the placement step is 0.1 mm or more.

[Claim 9] The method for manufacturing a concrete structure according to any one of claims 1 to 8, further comprising a bar arrangement step of arranging a predetermined reinforcing bar, wherein a reinforced concrete structure is manufactured as the concrete structure.

[Claim 10] The method for manufacturing a concrete structure according to any one of claims 1 to 9, wherein

in the placement step, concrete placement is performed in a state where a heat insulation material is disposed between the curing sheet and the formwork, and

in the demolding step, the formwork is removed with the heat insulation material being left.

[Claim 11] The method for manufacturing a concrete structure according to any one of claims 1 to 10, wherein in the placement step, a surface of the curing sheet, on which concrete is to be placed, is coated with at least one of a surface modifier, a shrinkage reducer, a water absorption inhibitor and a release agent for performing concrete placement.

[Claim 12] The method for manufacturing a concrete structure according to any one of claims 1 to 11, comprising

a providing step of providing a formwork having a plurality of openings which is to face concrete placed, and having an internal void linked to the openings, and the curing sheet for curing concrete placed; and,

a pressure reduction step of mounting the curing sheet to a surface of the formwork which is to face concrete placed so as to cover the plurality of openings, and reducing atmospheric pressure in the internal void,

wherein, in the placement step, concrete placement is performed in a state where the curing sheet is attached, by the pressure reduction step, to a surface of the formwork which is to face concrete placed.

[Claim 13]

The method for manufacturing a concrete structure according to any one of claims 1 to 12, wherein a predetermined holding device is used in at least any step of the mold installation step, the placement step and the demolding step to thereby leave the curing sheet on the concrete after removing the formwork.

[Claim 14] A curing sheet for curing of concrete, wherein the curing

sheet is attached to an inner surface of a formwork for concrete placement, and a contact angle of a contact surface facing the concrete with water is 50 degrees or more.

[Claim 15] The concrete curing sheet according to claim 14, wherein the contact angle of the contact surface with water is 69 degrees or more.

[Claim 16] The concrete curing sheet according to claim 15, wherein the contact angle of the contact surface with water is 80 degrees or more.

[Claim 17] The concrete curing sheet according to claim 16, wherein the contact angle of the contact surface with water is 90 degrees or more.

[Claim 18] The concrete curing sheet according to any one of claims 14 to 17, comprising polypropylene, polyethylene terephthalate, polyvinylidene chloride or polyvinyl chloride.

[Claim 19] The concrete curing sheet according to any one of claims 14 to 18, wherein a thickness of the sheet is 0.05 mm or more.

[Claim 20] The concrete curing sheet according to any one of claims 14 to 19, further comprising a plurality of needle-like or sheet-like protrusions disposed at an end of a sheet main body, wherein the plurality of protruding portions are disposed at a predetermined interval and substantially perpendicular to a surface of the sheet main body.

CLAIMS

[Claim 1] A method for manufacturing a concrete structure, comprising:

a mold installation step of installing a formwork for concrete placement;

a placement step of performing placement of concrete in a state where a non-pore curing sheet is attached to an inner surface of the formwork; and,

a demolding step of removing the formwork after placement of the concrete,

wherein a contact angle of a contact surface of the curing sheet for use in the placement step with water is 50 degrees or more, the contact surface facing the concrete.

[Claim 2] The method for manufacturing a concrete structure according to claim 1, further comprising a curing sheet attachment step of attaching a curing sheet inside the formwork in advance before the mold installation step.

[Claim 3] The method for manufacturing a concrete structure according to claim 1 or 2, further comprising a curing step of curing the concrete structure for a predetermined period with the curing sheet left on an attaching surface of the concrete structure, after the demolding step.

[Claim 4] The method for manufacturing a concrete structure according to any one of claims 1 to 3, wherein the contact angle of the contact surface of the curing sheet for use in the placement step with water is 69 degrees or more.

[Claim 5] The method for manufacturing a concrete structure according to claim 4, wherein the contact angle of the contact surface of the curing sheet for use in the placement step with water is 80 degrees or more.

[Claim 6] The method for manufacturing a concrete structure according to claim 5, wherein the contact angle of the contact surface of the curing sheet for use in the placement step with water is 90 degrees or more.

[Claim 7] The method for manufacturing a concrete structure according to any one of claims 1 to 6, wherein the curing sheet for use in the placement step

is a sheet comprising polypropylene, polyethylene terephthalate, polyvinylidene chloride or polyvinyl chloride.

[Claim 8] The method for manufacturing a concrete structure according to any one of claims 1 to 7, wherein a thickness of the curing sheet for use in the placement step is 0.1 mm or more.

[Claim 9] The method for manufacturing a concrete structure according to any one of claims 1 to 8, further comprising a bar arrangement step of arranging a predetermined reinforcing bar, wherein a reinforced concrete structure is manufactured as the concrete structure.

[Claim 10] The method for manufacturing a concrete structure according to any one of claims 1 to 9, wherein

in the placement step, concrete placement is performed in a state where a heat insulation material is disposed between the curing sheet and the formwork, and

in the demolding step, the formwork is removed with the heat insulation material being left.

[Claim 11] The method for manufacturing a concrete structure according to any one of claims 1 to 10, wherein in the placement step, a surface of the curing sheet, on which concrete is to be placed, is coated with at least one of a surface modifier, a shrinkage reducer, a water absorption inhibitor and a release agent to perform the concrete placement.

[Claim 12] A concrete curing sheet for casting and curing concrete,

wherein the non-pore curing sheet is attached to an inner surface of a formwork for concrete placement before casting concrete and is used for curing the concrete after casting, and

wherein a contact angle of a contact surface facing the casted concrete with water is 50 degrees or more.

[Claim 13] The concrete curing sheet for casting and curing concrete according to claim 12, wherein the contact angle of the contact surface with

water is 69 degrees or more.

[Claim 14] The concrete curing sheet for casting and curing concrete according to claim 13, wherein the contact angle of the contact surface with water is 80 degrees or more.

[Claim 15] The concrete curing sheet for casting and curing concrete according to claim 14, wherein the contact angle of the contact surface with water is 90 degrees or more.

[Claim 16] The concrete curing sheet for casting and curing concrete according to any one of claims 12 to 15, comprising polypropylene, polyethylene terephthalate, polyvinylidene chloride or polyvinyl chloride.

[Claim 17] The concrete curing sheet for casting and curing concrete according to any one of claims 12 to 16, wherein a thickness of the sheet is 0.1 mm or more.

[Claim 18] The concrete curing sheet for casting and curing concrete according to any one of claims 12 to 17, further comprising a plurality of needle-like or sheet-like protrusions disposed at an end of a sheet main body, wherein the plurality of protruding portions are disposed at a predetermined interval and substantially perpendicular to a surface of the sheet main body.