

WATERPROOF METHOD FOR FOUNDATION OF BUILDING

FIELD OF THE INVENTION

5 The present invention relates to a waterproof construction of a building, and more particularly a waterproof method for a foundation of the building which in coating manner.

BACKGROUND OF THE INVENTION

10 Modern buildings are constructed from reinforced concrete to obtain earthquake resistance, flame resistance, and sound insulation. For example, roads, bridges, buildings, and houses are constructed from the reinforced concrete.

 However, it is easy to cause cracks because of stress
15 concentration and shrinkage in forming the concrete, and groundwater or soils erode the reinforced concrete through the cracks easily, thus reducing durability, causing efflorescence (i.e. wall mold), and influencing aesthetics appearance.

 To overcome above-mentioned problems, waterproof works
20 to the foundation are embodied. For example, resin powders are added into cements in a rigid waterproof process, and water-resistance layer is produced after the cements are formed. However, cracks produce in the cements when a repeated change of high temperature and low temperature occurs, and water vapors flow into
25 the building via the cracks.

In a flexible waterproof process, for example, a waterproof method of foundation and a waterproof structure are disclosed in CN Patent No. 02153040.8. The waterproof method are applied by way of waterproof cloth, waterproof blanket, self-adhesive waterproof film, water guide plate or a waterproof coating material, wherein the waterproof cloth/film is limited by its size, so it is essential to connect multiple waterproof clothes/films, and the water vapors flow into the foundation via the connection slits or corners of the multiple waterproof clothes/films. Furthermore, it is difficult to connect the multiple waterproof clothes/films with the concrete matingly. When a plurality of water guide plates are connected, water penetrates the connection slits easily, and silts and dead leaves block guiding slots among the plurality of water guide plates easily.

A coating waterproof method is employed to integrally form coating films so as to avoid connection slits and water leakage and to obtain adhesion with heterogeneous material. Preferably, the waterproof film has high stiffness and ductility to endure cement cracking, thus achieving waterproof effect.

Nevertheless, the coating waterproof method cannot be applied in a limited space of the foundation easily.

The present invention has arisen to mitigate and/or obviate the afore-described disadvantages.

SUMMARY OF THE INVENTION

The primary aspect of the present invention is to provide a waterproof method for a foundation of a building which is capable of being used in a limited space of the foundation of the building to
5 accelerate construction time greatly.

To obtain above-mentioned aspect, a waterproof method for a foundation of a building provided by the present invention is applied after burying the foundation and before pouring cement, and the waterproof method contains steps of:

- 10 building a temporary wall around a foundation;
- coating a adhesion promoting primer layer on each of the temporary wall and the foundation;
- coating a waterproof material on the adhesion promoting primer layer so as to form a waterproof layer; and
- 15 coating a adhesion promoting layer on the waterproof layer.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a flow chart of a waterproof method for a foundation of a building according to a preferred embodiment of the
20 present invention.

FIG. 2 is a schematic view showing the application of the waterproof method for the foundation of the building according to the preferred embodiment of the present invention.

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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

With reference to FIGS. 1 and 2, a waterproof method for a foundation of a building according to a preferred embodiment of the present invention is applied after burying the foundation 1 and before
5 pouring cement, and the waterproof method comprises a step of:

building a temporary wall 2 around the foundation 1;

wherein the temporary wall 2 is made of any one of a cement board, a wood board, a calcium silicate board, a plywood, a brick
10 panel, a Styrofoam board, a cardboard, a tape, a film, a non-woven fabric, a fireproof blanket, a waterproof blanket, a cotton blanket, a fiber blanket, bricks, soils, and cements;

wherein a adhesion promoting primer layer 3 is coated on each of the temporary wall 2 and the foundation 1 so as to wet, level,
15 and attach dusts;

wherein the adhesion promoting primer layer 3 is made of resin;

wherein the resin is any one of polyurethane, polyurea, acrylic resin, vinyl acetate resin, epoxy resin, and liquid rubber;

20 wherein a waterproof material is coated on the adhesion promoting primer layer 3 so as to form a waterproof layer 4;

wherein the waterproof layer 4 is coated in any one of a brushing manner, a troweling manner, and a spraying manner.

The waterproof material is resin which is any one of
25 polyurethane, polyurea, acrylic resin, vinyl acetate resin, epoxy resin,

and liquid rubber;

Preferably, the polyurethane or the polyurea is used as the waterproof material because of stiffness and ductility.

5 A adhesion promoting layer 5 is coated on the waterproof layer 4.

The adhesion promoting layer 5 is made of resin.

The resin of the adhesion promoting layer 5 is any one of polyurethane, polyurea, acrylic resin, vinyl acetate resin, epoxy resin, and liquid rubber.

10 In addition, the coarse bone meals 51 are mixed with the adhesion promoting layer 5 so as to roughen the adhesion promoting layer 5.

The waterproof method further comprises a step of pouring cements 6 to the adhesion promoting layer 5.

15 Thereby, the adhesion promoting layer 5 is configured to reinforce a connection surface of the cements 6 and the waterproof layer 4, thus obtaining waterproof effect.

When pouring the cements 6, the coarse bone meals 51 of the adhesion promoting layer 5 attach with the cements 6 to connect
20 the waterproof layer 4 and the cements 6 tightly.

The foundation of the building is waterproof by using the waterproof method of the present invention.

Preferably, the waterproof method is capable of being used in a limited space of the foundation of the building to accelerate
25 construction time, reduce labor, avoid decentering, have self-

adhesion and easy construction. In addition, the foundation has root resistance, acid and alkali resistance, and salt spray resistance to obtain brilliant waterproof effect and to save maintenance and renovation cost.

5 While the preferred embodiments of the invention have been set forth for the purpose of disclosure, modifications of the disclosed embodiments of the invention as well as other embodiments thereof may occur to those skilled in the art. Accordingly, the appended claims are intended to covering assembly all embodiments which do
10 not depart from the spirit and scope of the invention.

WHAT IS CLAIMED IS:

1. A waterproof method for a foundation of a building being applied after burying the foundation and before pouring cement, and the waterproof method comprising steps of:

- 5 building a temporary wall around a foundation;
 coating a adhesion promoting primer layer on each of the temporary wall and the foundation;
 coating a waterproof material on the adhesion promoting primer layer so as to form a waterproof layer; and
10 coating a adhesion promoting layer on the waterproof layer.

2. The waterproof method as claimed in claim 1, wherein the temporary wall is made of any one of a cement board, a wood board, a calcium silicate board, a plywood, a brick panel, a Styrofoam board, a cardboard, a tape, a film, a non-woven fabric, a fireproof
15 blanket, a waterproof blanket, a cotton blanket, a fiber blanket, bricks, soils, and cements.

3. The waterproof method as claimed in claim 1, wherein the adhesion promoting primer layer is made of resin.

4. The waterproof method as claimed in claim 3, wherein
20 the resin is any one of polyurethane, polyurea, acrylic resin, vinyl acetate resin, epoxy resin, and liquid rubber.

5. The waterproof method as claimed in claim 1, wherein the waterproof layer is coated in any one of a brushing manner, a troweling manner, and a spraying manner.

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6. The waterproof method as claimed in claim 1, wherein the waterproof material is resin.

7. The waterproof method as claimed in claim 6, wherein the waterproof material is any one of polyurethane, polyurea, acrylic resin, vinyl acetate resin, epoxy resin, and liquid rubber.

8. The waterproof method as claimed in claim 7, wherein the waterproof material is the polyurethane or the polyurea.

9. The waterproof method as claimed in claim 1, wherein the adhesion promoting layer is resin.

10. The waterproof method as claimed in claim 9, wherein the adhesion promoting layer is any one of polyurethane, polyurea, acrylic resin, vinyl acetate resin, epoxy resin, and liquid rubber.

11. The waterproof method as claimed in claim 1, wherein coarse bone meals are mixed with the adhesion promoting layer so as to roughen the adhesion promoting layer.