What is claimed is:

1. A butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material, wherein the butyl rubber reactive bonding layer is prepared from raw materials comprising in parts by weight: 100 parts of a raw rubber, 9.5 to 15.5 parts of a linear tackifier resin containing a hydroxyl-terminated structure, and 12.5 to 19.5 parts of an active filler,

   wherein the active filler comprises active silica and active alumina as constituents.

2. The butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 1, wherein the butyl rubber reactive bonding layer is prepared from raw materials comprising in parts by weight: 100 parts of the raw rubber, 11 to 15.5 parts of the linear tackifier resin containing a hydroxyl-terminated structure, and 15 to 19.5 parts of the activity filler,

   preferably, the butyl rubber reactive bonding layer for the pre-applied reactive bonding waterproofing coiled material is prepared from raw materials comprising in parts by weight: 100 parts of the raw rubber, 13 to 15.5 parts of the linear tackifier resin containing a hydroxyl-terminated structure, and 18 to 19.5 parts of the active filler.

3. The butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 1 or 2, wherein the linear tackifier resin containing a hydroxyl-terminated structure is an unmodified or modified linear phenolic resin,

   preferably, the modified linear phenolic resin is one or more selected from the group consisting of a rosin-modified linear phenolic resin, a polyamide-modified linear phenolic resin, an epoxy-modified linear phenolic resin, an organosilicon-modified linear phenolic resin, and a furan-modified linear phenolic resin.

4. The butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 1 or 2, wherein the active filler comprises bauxite, sodium carbonate, quicklime, fly ash, and calcined kaolin,

   wherein a total weight of bauxite, sodium carbonate, quicklime, and fly ash accounts for 65% to 75% of a weight of the active filler, and a weight of calcined kaolin accounts for 20% to 34% of the weight of the active filler.

5. The butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 1 or 2, wherein the raw materials of the butyl rubber reactive bonding layer for the pre-applied reactive bonding waterproofing coiled material further comprise, by weight, 1 to 5.5 parts of a terpene resin and/or 5 to 10 parts of a hydrocarbon resin.

6. The butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 1 or 2, wherein the raw materials of the butyl rubber reactive bonding layer for the pre-applied reactive bonding waterproofing coiled material further comprise, by weight, 10 to 30 parts of a processing aid, 2 to 8 parts of an inorganic dye, 1 to 3 parts of an anti-aging agent, 1 to 3 parts of an ultraviolet absorber,

0.5 to 2 parts of a crosslinking agent, and/or 1 to 3 parts of a reaction-active auxiliary agent,

preferably, the processing aid is one or more selected from the group consisting of dioctyl phthalate, dibutyl phthalate, paraffin oil, and an aromatic hydrocarbon oil;

preferably, the inorganic dye is one selected from the group consisting of titanium white, iron oxide red, iron oxide blue, iron oxide green, iron oxide yellow, and iron oxide violet;

preferably, the anti-aging agent is one or more selected from the group consisting of anti-aging agent RD, anti-aging agent 4010NA, anti-aging agent 2246, and anti-aging agent AW;

preferably, the ultraviolet absorber is one or more selected from the group consisting of ultraviolet absorber UV-P, ultraviolet absorber UVP-327, and ultraviolet absorber UV-326;

preferably, the crosslinking agent is one or more selected from the group consisting of sulfur, p-benzoquinone dioxime, and zinc oxide; and

preferably, the reaction-active auxiliary agent is one or more selected from the group consisting of carboxylate, benzenesulfonate, lignosulfonate, and citrate.

7. The butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 1 or 2, wherein the butyl rubber reactive bonding layer is prepared from raw materials comprising in parts by weight:

100 parts of the raw rubber, 9.5 to 15.5 parts of the linear tackifier resin containing a hydroxyl-terminated structure, 1 to 5.5 parts of a terpene resin, 5 to 10 parts of a hydrocarbon resin, 50 to 150 parts of nano calcium carbonate, 12.5 to 19.5 parts of the active filler, 10 to 30 parts of a processing aid, 2 to 8 parts of an inorganic dye, 1 to 3 parts of an anti-aging agent, 1 to 3 parts of an ultraviolet absorber, 0.5 to 2 parts of a crosslinking agent, and 1 to 3 parts of a reaction-active auxiliary agent;

preferably, the butyl rubber reactive bonding layer for the pre-applied reactive bonding waterproofing coiled material is prepared from raw materials comprising in parts by weight: 100 parts of the raw rubber, 11 to 15.5 parts of the linear tackifier resin containing a hydroxyl-terminated structure, 2 to 5.5 parts of the terpene resin, 6 to 10 parts of the hydrocarbon resin, 80 to 150 parts of nano calcium carbonate, 15 to 19.5 parts of the active filler, 10 to 20 parts of the processing aid, 3 to 8 parts of the inorganic dye, 1 to 2 parts of the anti-aging agent, 1 to 2 parts of the ultraviolet absorber, 0.5 to 1 part of the crosslinking agent, and 1 to 2 parts of the reaction-active auxiliary agent; and

preferably, the butyl rubber reactive bonding layer for the pre-applied reactive bonding waterproofing coiled material is prepared from raw materials comprising in parts by weight: 100 parts of the raw rubber, 13 to 15.5 parts of the linear tackifier resin containing a hydroxyl-terminated structure, 3 to 5.5 parts of the terpene resin, 8 to 10 parts of the hydrocarbon resin, 100 to 120 parts of nano calcium carbonate, 18 to 19.5

parts of the active filler, 15 to 20 parts of the processing aid, 3 to 6 parts of the inorganic dye, 1 to 1.5 parts of the anti-aging agent, 1 to 1.5 parts of the ultraviolet absorber, 0.5 to 1 part of the crosslinking agent, and 1 to 2 parts of the reaction-active auxiliary agent.

8. A method for preparing the butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to any one of claims 1 to 7, comprising following steps:

(a) making, in accordance with a formulated weight, the raw rubber as well as 50% to 60% of a formulated weight of the linear tackifier resin containing a hydroxyl-terminated structure, a formulated weight of the active filler, and optionally the terpene resin, the hydrocarbon resin, nano calcium carbonate, the processing aid, the inorganic dye, the anti-aging agent and the ultraviolet absorber to perform banburying; and

(b) decreasing a temperature, and then making an obtained mixture and a rest of the linear tackifier resin containing a hydroxyl-terminated structure, and optionally the crosslinking agent and the reaction-active auxiliary agent to perform banburying, and molding an obtained mixture to obtain the butyl rubber reactive bonding layer.

9. The method for preparing the butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to claim 8, wherein in the step (a), a processing is performed at a temperature of 100 to 120 °C, the processing is performed for 5 to 8 min, and the banburying is performed for 8 to 10 min, and/or

in the step (b), the temperature after being decreased is 60 to 80 °C, and the banburying is performed for 4 to 5 min.

10. A pre-applied reactive bonding waterproofing coiled material, comprising the butyl rubber reactive bonding layer for a pre-applied reactive bonding waterproofing coiled material according to any one of claims 1 to 7 and a base film.