CLAIMS

1. A method of manufacturing a lead-acid battery electrode, comprising the steps of:

filling a paste-like active material onto a grid substrate made of a lead alloy to fabricate an active material-filled electrode;

pressing the active material-filled electrode;

aging and drying the active material-filled electrode which has been pressed in the step of pressing to obtain an electrode that has not been chemically converted; wherein:

the method further comprises the steps of:

treating a surface of the active material-filled electrode with sulfuric acid that has a constant temperature higher than an ordinary temperature; and

preliminarily drying the active material-filled electrode which has been treated with the sulfuric acid in the step of treating with sulfuric acid before the active material-filled electrode is aged in the step of aging and drying;

the sulfuric acid used in the step of treating with sulfuric acid has a constant temperature adjusted in the range of 40°C to 60°C, and has a specific gravity adjusted in the range of 1.10 to 1.30 (at a temperature of 20°C);

the step of treating with sulfuric acid is included in the step of pressing;

in the step of pressing, a roll pressing machine provided with a pair of rollers having pressing surfaces is used to press the active material-filled electrode by causing the active

material-filled electrode to pass between the pair of rollers; and

the sulfuric acid is infiltrated into the press surfaces of the pair of rollers and the sulfuric acid is applied to the surface of the active material-filled electrode when the active material-filled electrode passes between the pair of rollers.

2. A method of manufacturing a lead-acid battery electrode, comprising the steps of:

filling a paste-like active material onto a grid substrate made of a lead alloy to fabricate an active material-filled electrode;

pressing the active material-filled electrode; and

aging and drying the active material-filled electrode which has been pressed in the step of pressing to obtain an electrode that has not been chemically converted, wherein:

the method further comprises:

treating a surface of the active material-filled electrode with sulfuric acid that is adjusted to a constant temperature higher than an ordinary temperature; and

preliminarily drying the active material-filled electrode, the surface of which has been treated with the sulfuric acid in the step of treating with sulfuric acid, before the active material-filled electrode is aged in the step of aging and drying, wherein

the sulfuric acid used in the step of treating with sulfuric acid has a temperature that is adjusted in the range of 40°C to

60°C, and has a specific gravity that is adjusted in the range of 1.10 to 1.30 (at a temperature of 20°C).

3. The method of manufacturing a lead-acid battery electrode according to claim 2, wherein

a lead sulfate layer formed on the surface of the active material-filled electrode which has been preliminarily dried in the step of preliminarily drying has a thickness of 100 μm to 800 μm.

4. The method of manufacturing a lead-acid battery electrode according to claim 2, wherein

a lead sulfate layer formed on the surface of the active material-filled electrode which has been preliminarily dried in the step of preliminarily drying has a thickness of 100 μm to 500 μm.

5. The method of manufacturing a lead-acid battery electrode according to claim 2, 3, or 4, wherein the step of treating with sulfuric acid is performed at the same time as the step of pressing.

6. The method of manufacturing a lead-acid battery electrode according to claim 2, 3, or 4, wherein:

the step of treating with sulfuric acid is included in the step of pressing;

in the step of pressing, a roll pressing machine provided with a pair of rollers having pressing surfaces is used to press the active material-filled electrode by causing the active material-filled electrode to pass between the pair of rollers; and

the sulfuric acid is infiltrated into the press surfaces of the pair of rollers and the sulfuric acid is applied to the surface of the active material-filled electrode when the active material-filled electrode passes between the pair of rollers.