CLAIMS

1. A decorative board comprising:

a prepreg including:

(a) a binder component including:

(a1) at least one thermoplastic resin selected from a group consisting of acrylic resin having a glass-transition temperature Tg exceeding 0°C, vinyl chloride resin having a glass-transition temperature Tg exceeding 0°C, acrylic urethane, and aqueous polyurethane resin, and

(a2) a thermosetting resin,

a mixing ratio of the (a1) at least one thermoplastic resin to the (a2) thermosetting resin being 1:0–0.5 in solid content ratio, and

(b) an endothermic metal hydroxide; and

a thermosetting resin impregnated decorative paper,

wherein the prepreg and the thermosetting resin impregnated decorative paper are stacked and integrated.

2. The decorative board as set forth in claim 1, wherein the prepreg further includes (c) a silane coupling agent.

3. The decorative board as set forth in claim 1 or 2,

wherein the (b) endothermic metal hydroxide is aluminum hydroxide.

4. The decorative board as set forth in any one of claims 1-3, wherein the thermoplastic resin is an acrylic resin emulsion.

5. The decorative board as set forth in any one of claims 1-4, wherein the prepreg includes a non-woven glass fiber fabric as a substrate.

CLAIMS

1. A decorative board comprising:

a prepreg including:

(a) a binder component including:

(a1) at least one thermoplastic resin selected from a group consisting of acrylic resin emulsion having a glass-transition temperature Tg exceeding 0°C and having an average particle diameter of 150-300 nm, vinyl chloride resin having a glass-transition temperature Tg exceeding 0°C, acrylic urethane, and aqueous polyurethane resin, and

(a2) a thermosetting resin,

a mixing ratio of the (a1) at least one thermoplastic resin to the (a2) thermosetting resin being 1:0-0.5 in solid content ratio,

(b) an endothermic metal hydroxide, and

(c) a silane coupling agent; and

a thermosetting resin impregnated decorative paper,

wherein the prepreg and the thermosetting resin impregnated decorative paper are stacked and integrated.

2. The decorative board as set forth in claim 1, wherein the acrylic resin emulsion contains, as a main monomer, methyl methacrylate.

3. The decorative board as set forth in claim 1 or 2, wherein a mixing ratio of (c) to the total of (a), (b), and (c) is 0.7-0.9 weight%.

4. The decorative board as set forth in any one of claims 1-3, wherein the (c) silane coupling agent is epoxy group-containing silane or amino group-containing silane.

5. The decorative board as set forth in claim 4, wherein the (c) silane coupling agent is 3-glycidoxypropyltrimethoxysilane.

6. The decorative board as set forth in any one of claims 1-5, wherein a mixing ratio of (a) to the total of (a), (b), and (c) is 9-15 weight% in solid content.

7. The decorative board as set forth in any one of claims 1-6, wherein the (b) endothermic metal hydroxide is aluminum hydroxide.

8. The decorative board as set forth in any one of claims 1-7, wherein the prepreg includes a non-woven glass fiber fabric as a substrate.

9. The decorative board as set forth in any one of claims 1-8, wherein a thickness thereof is 0.67-0.71 mm.

10. The decorative board as set forth in any one of claims 1-9, wherein a resin-impregnated balance paper is added to be stacked together with the prepreg and the thermosetting resin impregnated decorative paper.