external corner (also referred to as jointer for external corner), 5c…jointer of L-letter type for external corner (also referred to as jointer for external corner), 5c1…decorative laminate, 5c2…aluminum base material, 5d…jointer of fit type for internal corner (also referred to as jointer for internal corner), 5d1…cover member (male fitting member), 5d2…base member (female fitting member), 5e…jointer of L-letter type for internal corner (also referred to as jointer for internal corner), 6…caulking agent, 7…joint bottom tape, 9…decorative laminate, 11…decorative laminate to which double-sided adhesive tape is adhered and elastic glue is applied, 12…decorative laminate to which double-sided adhesive tape is adhered and elastic glue is applied, 15…stepped member, 15a…first board body, 15b…second board body, 15c…upper planar portion, 15d…lower planar portion, 15e…side wall, 16…electric circular saw, 16a…blade guide of electric circular saw, 16b…blade of electric circular saw, 17…glass vacuum lifter, 21…base material, L…distance between an end surface facing blade and blade, w…width of lower planar portion, 30…gap, 31…gap, 32…gap, 32'…gap, t…width of gap, t1…width of gap, t2…width of gap, t2'…width of gap, t3…width of gap

MODE FOR CARRYING OUT THE INVENTION

[0012] FIG. 1 is a plan view of a decorative laminate (9) that is cut into a desired size. The decorative laminate has double-sided adhesive tapes adhered to a back side thereof and elastic glue applied to the back side. FIG. 2 is an enlarged plan view of a main part of FIG. 1. On the back side of the decorative laminate, the double-sided adhesive tape (2) for outer side of the decorative laminate is adhered to an outer circumferential portion at a position 1 to 300 mm inward of, and more preferably 25 to 35 mm inward of an outer edge of the back side. Further, the double-sided adhesive tape (2) for inner side of the decorative laminate is adhered to an inner portion that is located inward of the double-sided adhesive tape (2) for outer side. The

ºC, surely enables the decorative laminate to be temporarily fixed to the base material in its application in a room temperature environment. The double-sided adhesive tape, which has the aforementioned strength at a temperature of 0 ºC, surely enables the decorative laminate to be temporarily fixed to the base material in its application during cold.

Further, it is desirable that the double-sided adhesive tape has the adhesive strength of 3 to 30 N/20mm at a temperature of 23 ºC and 1 to 20 N/20mm in a low temperature environment (at a temperature of 0 ºC). In these cases, the decorative laminate can be surely temporarily fixed to the base material in both the room temperature environment and the cold environment.

[0018] Preferably, in the present disclosure, the support body for the adhesive layer of the double-sided adhesive tape is a film made from polyethylene-based foamed resin or PET (polyethylene terephthalate). And, adhesive agent containing acrylic-based resin or butyl rubber is used for the adhesive layer.

[0019] In the present disclosure, the elastic glue is applied to the outer circumferential portion on the back side of the decorative laminate and to the inside of the sections formed in the inner portion of the decorative laminate inward of the outer circumferential portion.

The elastic glue is glue that has rubber elasticity after being cured. Examples of the elastic glue include modified silicone resin based, polyurethane resin based, polysulfide modified epoxy resin based, acrylic resin based, SBR (styrene-butadiene rubber based), and vinyl acetate resin based. The modified silicone resin-based glue is preferable due to its advantage in water resistance, durability, and adhesion, and followability to contraction and extension in dimensions of the decorative laminate, which is easily contracted and extended due to humidity and dryness. The elastic glue can be moisture-curable reactive adhesive agent.

Examples of the wooden base material include, a plywood, an insulation board, a MDF (Medium Density Fiberboard), a hard board, a particle board, and an oriented strand board.

Examples of the organic base material include a plastic board, such as of thermosetting resin based or thermoplastic resin based. Specific examples include a phenol resin board, a polycarbonate board, an acrylic resin board, a hard vinyl chloride board, a soft vinyl chloride board, a polypropylene resin board, a polystyrene resin board, and a polyethylene terephthalate (PET) resin board.

[0036] Particularly, if the base material and the double-sided adhesive tapes or the elastic glue are not adhered to each other well, a primer may be used to treat the base material. Examples of the primer include acrylic based, urethane based, polyester based, silicone based, butyl rubber based, and epoxy based. In the present disclosure, if the base material is a calcium silicate board, a plywood, or mortar, a polyurethane resin-based primer or an acrylic resin primer is used in advance of the step (A) in order to enhance the strength of the elastic glue.

[0037] The decorative laminate to be applied to the base material is advantageously a thermosetting resin decorative laminate that includes a decorative layer and a core layer. This is because the thermosetting resin decorative laminate is advantageous in wear resistance, strength, and heat resistance. As the core layer of the thermosetting resin decorative laminate, a thermosetting resin-impregnated kraft paper can be used. The core layer can also be configured with a prepreg containing a fibrous base material, an organic binder component, and an inorganic filler. Preferable is a prepreg that is formed by impregnating the inorganic fibrous base material with a slurry containing a binder component and an inorganic filler and by drying. This is because such a prepreg provides the decorative laminate with non-combustibility.

endothermic metal hydroxide. This is because the blending ratio of the endothermic metal hydroxide within these ranges provides flat and satisfactory appearance of the surface of the decorative laminate. Further, the blending ratio of 0.2 part by weight or more of the endothermic metal hydroxide provides the decorative laminate with advantageous non-combustibility. The blending ratio of 20 part by weight or less of the endothermic metal hydroxide inhibits the endothermic metal hydroxide in the slurry from being precipitated, which consequently facilitates control of the impregnation amount of the slurry. The blending ratio of 20 part by weight or less of the endothermic metal hydroxide can reduce wear of a cutter used for cutting the decorative laminate.

[0049] As for the above-described inorganic filler, it is particularly preferable to use three types of inorganic fillers that include the inorganic substance other than the endothermic metal hydroxide and/or the endothermic metal hydroxide and that have respective different average particle diameters.

[0050] The three types of inorganic fillers having the respective different average particle diameters comprise a small particle diameter inorganic filler, a medium particle diameter inorganic filler, and a large particle diameter inorganic filler. The small particle diameter inorganic filler is 0.04 μm or more and less than 4 μm. The medium particle diameter inorganic filler is 4 μm or more and less than 12 μm. The large particle diameter inorganic filler is 12 μm or more and less than 50 μm. These three types of inorganic fillers may be the same substance or difference substances. The blending ratio of the small particle inorganic filler to the medium particle diameter inorganic filler to the large particle diameter inorganic filler in the slurry is preferably 1:0.1 to 20:0.1 to 20, and more preferably 1:0.1 to 10:0.1 to 10. In these cases, the decorative laminate that is advantageous in both smoothness and non-combustibility can be obtained.

[0051] The reason for advantage in smoothness is considered to be as follows. The inorganic filler is considered to be uniformly dispersed on the surface of

acrylic double-sided adhesive tape B comprises, as the support body, a PET film that has a thickness of 0.02 mm. An adhesive layer on each side of the acrylic double-sided adhesive tape B has a thickness of 0.04 mm.

[Example 3]

[0058] Paired two decorative laminates were prepared in the same manner as in Example 1, except that an acrylic double-sided adhesive tape C was used in replacement of the acrylic double-sided adhesive tape A. The acrylic double-sided adhesive tape C has the entire thickness of 4 mm. The acrylic double-sided adhesive tape C comprises, as the support body, the polyethylene-based foamed resin body that has a thickness of 3.80 mm. An adhesive layer on each side of the acrylic double-sided adhesive tape C has a thickness of 0.10 mm.

[Example 4]

[0059] Production of Melamine Resin-Impregnated Decorative Paper

A decorative paper in a wood grain pattern was impregnated with resin liquid mainly composed of melamine-formaldehyde resin such that the impregnation rate as defined by Formula 1 was 130% and was then dried to obtain a melamine resin-impregnated decorative paper.

[0060] Production of Prepreg

A glass fiber nonwoven fabric having a basis weight of 75 g/m^2 (binder component: thermoplastic resin emulsion, a thickness of 0.585 mm, and a density of 0.130g/cm^3) was impregnated with a slurry such that the impregnation rate of the slurry as defined by Formula 1 was 1200% and was then dried to obtain a prepreg. The slurry was blended with 4.5 part by weight of phenol-formaldehyde resin, 3.5 part by weight of melamine-formaldehyde resin, 16.5 part by weight of calcium carbonate having an average particle diameter of 1.4 μm as the small particle diameter inorganic filler, 37.5 part by weight of aluminum hydroxide having an average particle diameter of 8 μm as the medium particle diameter inorganic filler, and 37.5 part by weight of aluminum hydroxide having an average

coupling portion (5b3) was inserted in the joint (4). The cover piece (5b2) sealed the joint (4). FIG. 23 is an enlarged sectional view of a main part of FIG. 10. Each end surface of the paired two decorative laminates (9, 9) and the coupling portion (5b3) of the jointer of arrow head type for external corner (5b) has a gap (31) at close range having a width (t1) of 1.5 mm.

[Example 10]

[0067] Example 10 is different from Example 9 in that the paired two decorative laminates (9, 9) were spaced apart at the external corner portion (A) to fill the jointer for external corner (5c), which is made of aluminum, and the silicone-based caulking agent (6) therebetween as shown in FIG. 11A. The jointer for external corner (5c) includes an aluminum member (5c2) as a base material and a melamine resin-impregnated resin decorative laminate (5c1) that is adhered to a surface of the aluminum member (5c2). The silicone-based caulking agent (6) was filled between the jointer for external corner (5c) and the paired two decorative laminates (9, 9).

FIG. 11B is a perspective front view as seen from a Z direction in FIG. 11A. The external corner portion (A) of the base material (21) was sequentially applied with the elastic glue and the acrylic double-sided adhesive tape A (for adhesion of the jointer for external corner (5c)). The elastic glue for adhering the jointer for external corner (5c) to the base material (21) was the moisture-curable solvent free one-component modified silicone resin elastic glue.

[Example 11]

[0068] Example 11 is an example in which paired two decorative laminates (9, 9) were attached to an internal corner portion (B) of the base material (21) as shown in FIG. 12. The joint (4) between the paired two decorative laminates (9, 9) was provided with the jointer for internal corner (5d) that is made of resin. The jointer for internal corner (5d) comprises a cover member (5d1) and a base member (5d2). The base member (5d2) includes a bottom piece (5d3) and a fitting portion (5d4). The fitting portion (5d4)

material in replacement of the calcium silicate board having a thickness of 9 mm. Further, the mortar was applied with acrylic primer on its surface such that the application quantity was 10 g/m^2 in solid content.

[Example 20]

[0077] A decorative laminate was produced in the same manner as in Example 4, except that the slurry for use as the inorganic filler for the prepreg was blended with 16.5 part by weight calcium carbonate having an average particle diameter of 1.4 μm, 37.5 part by weight of calcium carbonate having an average particle diameter of 8 μm, and 37.5 part by weight of calcium carbonate having an average particle diameter 17 μm. And, the rubber-based glue was used in replacement of the modified silicone resin glue.

[Example 21]

[0078] A decorative laminate was produced in the same manner as in Example 4, except that the slurry for use as the inorganic filler for the prepreg was blended with 16.5 part by weight of aluminum hydroxide having an average particle diameter of 1.0 μm, 37.5 part by weight of aluminum hydroxide having an average particle diameter of 8 μm, and 37.5 part by weight of aluminum hydroxide having an average particle diameter of 20 μm. And, urethane-based glue was used in replacement of the modified silicone resin glue.

[Example 22]

[0079] A decorative laminate was produced in the same manner as in Example 14, except that the binder components of the prepreg were 0 part by weight of phenol-formaldehyde resin and 8 part by weight of melamine-formaldehyde resin. And, epoxy-based glue was used in replacement of the modified silicone resin glue.

[Example 23]

[0080] A decorative laminate was produced in the same manner as in Example 4, except that the slurry for use as the inorganic filler was blended with 6.5

CLAIMS

[Claim 1] An attachment configuration of decorative laminates, comprising at least paired two decorative laminates attached to a base material,

wherein the at least paired two decorative laminates are used for a vertical surface,

wherein the at least paired two decorative laminates each have a double-sided adhesive tape adhered to an outer circumferential portion on a back side of the decorative laminate and a double-sided adhesive tape adhered to an inner portion inward of the outer circumferential portion to form a section,

wherein elastic glue containing solvent free one-component modified silicone resin is applied to an outside of the double-sided adhesive tape for the outer circumferential portion on the back side and the elastic glue is also applied within the section formed with the double-sided adhesive tape for the inner portion,

wherein the at least paired two decorative laminates include a spaced portion therebetween and are fixed to the base material on their respective back sides, and

wherein the double-sided adhesive tape has the entire thickness of 0.03 to 10 mm and has an adhesive strength of 3 to 30 N/20mm at a temperature of 23 ºC or an adhesive strength of 1 to 20 N/20mm at a temperature of 0 ºC according to 90-degree peel test based on JIS Z 0237.

[Claim 2] An attachment configuration of decorative laminates, comprising at least paired two decorative laminates attached to a base material,

wherein the at least paired two decorative laminates are used for a vertical surface,

wherein the at least paired two decorative laminates each include a decorative layer and a core layer,

wherein the core layer is configured with a prepreg containing a fibrous base material, an organic binder component, and an inorganic filler,

wherein a volume cumulative particle diameter Dv(10) of the inorganic filler measured by a laser diffraction/scattering-type particle distribution measurement

method is 0.5 μm or more and a volume cumulative particle diameter Dv(90) of the inorganic filler measured by the laser diffraction/scattering-type particle distribution measurement method is 40.0 μm or less,

wherein the at least paired two decorative laminates each have a double-sided adhesive tape adhered to an outer circumferential portion on a back side of the decorative laminate and a double-sided adhesive tape adhered to an inner portion inward of the outer circumferential portion to form a section,

wherein elastic glue is applied to an outside of the double-sided adhesive tape for the outer circumferential portion on the back side and the elastic glue is also applied within the section formed with the double-sided adhesive tape for the inner portion,

wherein the at least paired two decorative laminates include a spaced portion therebetween and are fixed to the base material on their respective back sides, and

wherein the double-sided adhesive tape has the entire thickness of 0.03 to 10 mm and has an adhesive strength of 3 to 30 N/20mm at a temperature of 23°C or an adhesive strength of 1 to 20 N/20mm at a temperature of 0°C according to 90-degree peel test based on JIS Z 0237.

[Claim 3] The attachment configuration of decorative laminates according to claim 1, wherein the at least paired two decorative laminates each include a decorative layer and a core layer, and

wherein the core layer is configured with a prepreg containing a fibrous base material, an organic binder component, and an inorganic filler.

[Claim 4] The attachment configuration of decorative laminates according to claim 2 or 3, wherein a blending ratio of the organic binder component to the inorganic filler in the core layer by solid weight is 1:1-25.

[Claim 5] The attachment configuration of decorative laminates according to any one of claims 2 to 4, wherein the inorganic filler contains three types of inorganic fillers that have respective different average particle diameters.

[Claim 6] The attachment configuration of decorative laminates according to claim 5, wherein an average particle diameter of the inorganic filler is 0.04 μm or more and less than 50 μm.

[Claim 7] The attachment configuration of decorative laminates according to claim 5 or 6,
wherein the three types of inorganic fillers, which have the respective different average particle diameters, comprise:
a small particle diameter inorganic filler;
a medium particle diameter inorganic filler; and
a large particle diameter inorganic filler,
wherein an average particle diameter of the small particle diameter inorganic filler is 0.04 μm or more and less than 4 μm, an average particle diameter of the medium particle diameter inorganic filler is 4 μm or more and less than 12 μm, and an average particle diameter of the large particle diameter inorganic filler is 12 μm or more and less than 50 μm.

[Claim 8] The attachment configuration of decorative laminates according to any one of claims 2 to 7, wherein the inorganic filler is endothermic metal hydroxide, and/or an inorganic substance other than the endothermic metal hydroxide.

[Claim 9] The attachment configuration of decorative laminates according to claim 7, wherein a blending ratio of the small particle diameter inorganic filler to the medium particle diameter inorganic filler to the large particle diameter inorganic filler in the core layer is 1:0.1 to 20:0.1 to 20.

[Claim 10] The attachment configuration of decorative laminates according to any one of claims 3 to 9,
wherein a volume cumulative particle diameter Dv(10) of the inorganic filler

measured by a laser diffraction/scattering-type particle distribution measurement method is 0.5 μm or more and a volume cumulative particle diameter Dv(90) measured by the laser diffraction/scattering-type particle distribution measurement method is 40.0 μm or less.

[Claim 11] The attachment configuration of decorative laminates according to any one of claims 2 to 10, wherein a specific surface area of the inorganic filler measured by the laser diffraction/scattering-type particle distribution measurement method is 800 to 4000 m^2/kg.

[Claim 12] The attachment configuration of decorative laminates according to any one of claims 2 to 11, wherein the fibrous base material is made from a nonwoven fabric, which is an aggregate of thermoplastic resin emulsion and a fiber.

[Claim 13] The attachment configuration of decorative laminates according to any one of claims 1 to 12, wherein the spaced portion is located in a plane, at an external corner, or at an internal corner of the attachment configuration.

[Claim 14] The attachment configuration of decorative laminates according to any one of claims 1 to 13, wherein the spaced portion is provided with one or more of a joint bottom tape, a jointer, or caulking agent.

[Claim 15] The attachment configuration of decorative laminates according to any one of claims 1 to 14, wherein the double-sided adhesive tape has an adhesive strength of 3 to 30 N/20mm at a temperature of 23°C and an adhesive strength of 1 to 20 N/20mm at a temperature of 0°C according to 90-degree peel test based on JIS Z 0237.

[Claim 16] The attachment configuration of decorative laminates according to any one of claims 1 to 15, wherein the base material is a plaster board, a calcium silicate board, a plywood, or mortar.

[Claim 17] The attachment configuration of decorative laminates according to any one of claims 1 to 16, wherein the base material is treated with a primer.

[Claim 18] The attachment configuration of decorative laminates according to any one of claims 1 to 17, wherein the elastic glue has an tensile strength of 0.1 to 0.9 kN with respect to a metal jig having a size of 40 mm x 40 mm according to measurement using an adhesive strength testing machine in Building Institute Method.

[Claim 19] The attachment configuration of decorative laminates according to any one of claims 1 to 18, wherein the elastic glue is moisture-curable reactive adhesive agent.

[Claim 20] The attachment configuration of decorative laminates according to any one of claims 2 to 19, wherein the elastic glue is solvent free one-component modified silicone resin-based elastic glue.

[Claim 21] The attachment configuration of decorative laminates according to any one of claims 1 to 20,
wherein the at least paired two decorative laminates each include a decorative layer and a core layer,
wherein the core layer is configured with a prepreg containing a fibrous base material, an organic binder component, and an inorganic filler,
wherein a blending ratio of the organic binder component to the inorganic filler in the core layer by solid weight is 1:1 to 25, and
wherein a thickness of each decorative laminate is 0.86 to 8.00 mm.

[Claim 22] A method of applying decorative laminates to a base material in order to obtain the attachment configuration of decorative laminates according to any one of claims 1 to 20, the method comprising:
(A) cutting one decorative laminate of at least paired two decorative laminates into a

desired size;

(B) adhering a double-sided adhesive tape to an outer circumferential portion on a back side of the one decorative laminate obtained in the cutting (A) and adhering a double-sided adhesive tape to an inner portion inward of the outer circumferential portion to form a section, and applying elastic glue to an outside of the double-sided adhesive tape for the outer circumferential portion on the back side and also applying the elastic glue within the section formed with the double-sided adhesive tape for the inner portion;

(C) fixing the one decorative laminate obtained in the adhering (B) to a base material, the fixing being carried out by pressing the one decorative laminate toward the base material while the one decorative laminate is attached to a vacuum lifter such that the one decorative laminate is used for a vertical surface, and

(D) treating the other decorative laminate of the at least paired two decorative laminates in the same manner as in the cutting (A), the adhering (B), and the fixing (C), and fixing the other decorative laminate to the base material,

wherein a spaced portion is formed between the one decorative laminate and the other decorative laminate fixed to the base material.

[Claim 23] The method of applying decorative laminates to a base material according to claim 22,

wherein the at least paired two decorative laminates each include a decorative layer and a core layer,

wherein the core layer is configured with a prepreg containing a fibrous material, an organic binder component, and an inorganic filler,

wherein a blending ratio of the organic binder component to the inorganic filler in the core layer by solid weight is 1:1 to 25, and

wherein a thickness of each decorative laminate is 0.86 to 8.00 mm.

[Claim 24] The method of applying decorative laminates to a base material according to claim 22 or 23, wherein, in the cutting (A), the one decorative laminate of the at

least paired two decorative laminates is cut into the desired size using a member that has a rectangular shape in a plan view, the member including a difference for one step in height and being provided with an upper planar portion, a lower planar portion, and a side wall.

[Claim 25] The method of applying decorative laminates to a base material according to any one of claims 22 to 24, wherein the double-sided adhesive tape has the entire thickness of 0.03 to 10 mm and has an adhesive strength of 3 to 30 N/20mm at a temperature of 23°C or an adhesive strength of 1 to 20 N/20mm at a temperature of 0°C according to 90-degree peel test based on JIS Z 0237.

[Claim 26] The method of applying decorative laminates to a base material according to any one of clams 22 to 25, wherein the spaced portion is located in a plane, at an external corner, or at an internal corner of the attachment configuration.

[Claim 27] The method of applying decorative laminates to a base material according to any one of clams 22 to 26, wherein the spaced portion is provided with one or more of a joint bottom tape, a jointer, or caulking agent.

[Claim 28] The method of applying decorative laminates to a base material according to any one of claims 22 to 27, wherein the base material is a plaster board, a calcium silicate board, a plywood, or mortar.

[Claim 29] The method of applying decorative laminates to a base material according to any one of claims 22 to 28, wherein the method further comprises treating the base material with a primer.