CLAIMS

1. An insole for a shoe, the insole comprising:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

in the medial arch portion, a surface to be adjacent to the foot sole being an upper surface, and a surface opposite the upper surface being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the covered portion being formed as an indented area on the surface of the main portion that is to be adjacent to the foot sole, and an outer edge of the medial arch portion overlapping an outer edge of the covered portion,

at least a portion of the outer edge of the medial arch portion being formed by a linear portion that forms outer edges of the upper surface and of the lower surface,

the hardness of the material forming the main portion and the hardness of the material forming the medial arch portion being 10 durometers or greater and 50 durometers or less,

an absolute value obtained by subtracting the hardness of the material forming the main portion from the hardness of the material forming the medial arch portion being 10 durometers or greater and 40 durometers or less,

the insole further comprising a surface layer material that is a sheet-shaped

member covering the upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the surface layer material and the upper surfaces of the medial arch portion and of the main portion being joined to each other using a hot-melt,

to facilitate contact of the insole with the medial longitudinal arch portion, shapes and thicknesses of the medial arch portion and of the covered portion in the main portion being adjusted so that a thickness of a portion of the insole relatively increases, the portion being configured to face the medial longitudinal arch portion, and

the medial arch portion including a portion that gradually becomes thinner toward the outer edge of the medial arch portion.

2. An insole for a shoe, the insole comprising:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

in the medial arch portion, a surface to be adjacent to the foot sole being an upper surface, and a surface opposite the upper surface being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the covered portion being formed as an indented area on the surface of the main portion that is to be adjacent to the foot sole, and an outer edge of the medial arch portion

overlapping an outer edge of the covered portion,

at least a portion of the outer edge of the medial arch portion being formed by a linear portion that forms outer edges of the upper surface and of the lower surface,

the hardness of the material forming the main portion and the hardness of the material forming the medial arch portion being 10 durometers or greater and 50 durometers or less,

an absolute value obtained by subtracting the hardness of the material forming the main portion from the hardness of the material forming the medial arch portion being 10 durometers or greater and 40 durometers or less,

the insole further comprising a surface layer material that is a sheet-shaped member covering the upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the surface layer material and the upper surfaces of the medial arch portion and of the main portion being joined to each other using a hot-melt,

to facilitate contact of the insole with the medial longitudinal arch portion, shapes and thicknesses of the medial arch portion and of the covered portion in the main portion being adjusted so that a slope rising toward its medial side is formed in a portion of the insole, the portion being configured to face the medial longitudinal arch portion, and

the medial arch portion including a portion that gradually becomes thinner toward the outer edge of the medial arch portion.

3. The insole according to claim 1 or 2, wherein

in the main portion, a portion in contact with the portion of the medial arch portion that gradually becomes thinner gradually becomes thicker toward an outer edge of the main portion.

4. An insole for a shoe, the insole comprising:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

in the medial arch portion, a surface to be adjacent to the foot sole being an upper surface, and a surface opposite the upper surface being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the covered portion being formed as an indented area on the surface of the main portion that is to be adjacent to the foot sole, and an outer edge of the medial arch portion overlapping an outer edge of the covered portion,

at least a portion of the outer edge of the medial arch portion being formed by a linear portion that forms outer edges of the upper surface and of the lower surface,

the hardness of the material forming the main portion and the hardness of the material forming the medial arch portion being 10 durometers or greater and 50 durometers or less,

an absolute value obtained by subtracting the hardness of the material forming the main portion from the hardness of the material forming the medial arch portion being 10 durometers or greater and 40 durometers or less,

the insole further comprising a surface layer material that is a sheet-shaped member covering the upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the surface layer material and the upper surfaces of the medial arch portion and of the main portion being joined to each other using a hot-melt,

the surface layer material further covering a lower surface of the main portion, the lower surface being located on a side opposite the upper surface of the main portion,

the surface layer material and the lower surface of the main portion being joined to each other using the hot-melt,

the insole further comprising an ear portion provided along an outer edge of the main portion,

the surface layer material including:

an upper surface layer material covering the upper surfaces of the medial arch portion and of the main portion; and

a lower surface layer material covering the lower surface of the main portion,

the ear portion including:

an upper edge portion that includes an outer edge of the upper surface layer material; and

a lower edge portion that includes an outer edge of the lower surface layer material,

the upper edge portion and the lower edge portion being arranged in an overlapping manner and joined to each other using the hot-melt, and

the ear portion being provided along an outer edge of the upper surface of the main portion.

5. The insole according to claim 4, wherein

the upper edge portion and a portion of the upper surface layer material excluding the upper edge portion are smoothly connected, and

a boundary between the lower edge portion and a portion of the lower surface layer material excluding the lower edge portion is bent.

6. The insole according to any one of claims 1 and 5, wherein

the hardness of the material forming the medial arch portion is higher than the hardness of the material forming the main portion.

7. The insole according to any one of claims 1 and 6, wherein

the medial arch portion is formed of a styrene-based gel material.

8. A method of manufacturing an insole for a shoe using a first die and a second die,

the insole including:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

a surface of the medial arch portion opposite the surface to be adjacent to the foot sole being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the insole further including an upper surface layer material that is a sheet-shaped member covering an upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the first die including:

a first portion having a shape corresponding to a shape of the insole; and

a first circumferential portion surrounding the first portion,

the second die including:

a second portion that is a recessed portion configured to form a housing space between the second portion and the first portion when the second portion faces the first portion, the second portion being a portion having a shape corresponding to the shape of the insole; and

a second circumferential portion surrounding the second portion, and

in a heated object,

a hot-melt being arranged between the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material covering the upper surfaces, the medial arch portion being arranged in the covered portion, and

an upper edge portion being formed in the upper surface layer material so as to surround the upper surfaces,

the method of manufacturing the insole comprising:

arranging the heated object in the housing space formed between the first portion and the second portion, the housing space being formed by bringing the first circumferential portion and the second circumferential portion close to each other so that:

the upper surface layer material and the upper surfaces of the medial arch portion and of the main portion face the first portion of the first die;

a lower surface of the main portion faces the second portion of the second die; and

the upper edge portion is positioned between the first circumferential portion and the second circumferential portion; and

joining the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material to each other by heating, through the first die and the second die, the heated object arranged in the housing space,

to facilitate contact of the insole with the medial longitudinal arch portion, shapes and thicknesses of the medial arch portion and of the covered portion in the main portion being adjusted so that a thickness of a portion of the insole relatively increases, the portion being configured to face the medial longitudinal arch portion, and

the medial arch portion including a portion that gradually becomes thinner toward an outer edge of the medial arch portion.

9. A method of manufacturing an insole for a shoe using a first die and a second die,

the insole including:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

a surface of the medial arch portion opposite the surface to be adjacent to the foot sole being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the insole further including an upper surface layer material that is a sheet-shaped member covering an upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the first die including:

a first portion having a shape corresponding to a shape of the insole; and

a first circumferential portion surrounding the first portion,

the second die including:

a second portion that is a recessed portion configured to form a housing

space between the second portion and the first portion when the second portion faces the first portion, the second portion being a portion having a shape corresponding to the shape of the insole; and

a second circumferential portion surrounding the second portion, and

in a heated object,

a hot-melt being arranged between the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material covering the upper surfaces, the medial arch portion being arranged in the covered portion, and

an upper edge portion being formed in the upper surface layer material so as to surround the upper surfaces,

the method of manufacturing the insole comprising:

arranging the heated object in the housing space formed between the first portion and the second portion, the housing space being formed by bringing the first circumferential portion and the second circumferential portion close to each other so that:

the upper surface layer material and the upper surfaces of the medial arch portion and of the main portion face the first portion of the first die;

a lower surface of the main portion faces the second portion of the second die; and

the upper edge portion is positioned between the first circumferential portion and the second circumferential portion; and

joining the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material to each other by heating, through the first die and the second die, the heated object arranged in the housing space,

to facilitate contact of the insole with the medial longitudinal arch portion, shapes and thicknesses of the medial arch portion and of the covered portion in the main portion being adjusted so that a slope rising toward its medial side is formed in a portion of the insole, the portion being configured to face the medial longitudinal arch portion, and

the medial arch portion including a portion that gradually becomes thinner toward an outer edge of the medial arch portion.

10. The method of manufacturing an insole according to claim 8 or 9, wherein

in the main portion, a portion in contact with the portion of the medial arch portion that gradually becomes thinner gradually becomes thicker toward an outer edge of the main portion.

11. A method of manufacturing an insole for a shoe using a first die and a second die,

the insole including:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

a surface of the medial arch portion opposite the surface to be adjacent to the foot sole being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the insole further including an upper surface layer material that is a sheet-shaped member covering an upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the first die including:

a first portion having a shape corresponding to a shape of the insole; and

a first circumferential portion surrounding the first portion,

the second die including:

a second portion that is a recessed portion configured to form a housing space between the second portion and the first portion when the second portion faces the first portion, the second portion being a portion having a shape corresponding to the shape of the insole; and

a second circumferential portion surrounding the second portion, and

in a heated object,

a hot-melt being arranged between the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material covering the upper surfaces, the medial arch portion being arranged in the covered portion, and

an upper edge portion being formed in the upper surface layer material so as to surround the upper surfaces,

the method of manufacturing the insole comprising:

arranging the heated object in the housing space formed between the first portion and the second portion, the housing space being formed by bringing the first circumferential portion and the second circumferential portion close to each other so that:

the upper surface layer material and the upper surfaces of the medial arch portion and of the main portion face the first portion of the first die;

a lower surface of the main portion faces the second portion of the second die; and

the upper edge portion is positioned between the first circumferential portion and the second circumferential portion; and

joining the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material to each other by heating, through the first die and the second die, the heated object arranged in the housing space,

the insole further including a lower surface layer material that is a sheet-shaped member and a portion covering the lower surface of the main portion, the lower surface being a surface located opposite the upper surface of the main portion,

the heated object further including a hot-melt arranged between the lower surface

of the main portion and the lower surface layer material covering the lower surface,

the method of manufacturing the insole comprising:

arranging the heated object in the housing space so that the upper surface layer material and the upper surfaces of the medial arch portion and of the main portion face the first portion of the first die, and the lower surface layer material and the lower surface of the main portion face the second portion of the second die; and

joining, by heating the heated object through the first die and the second die, the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material to each other, and the lower surface of the main portion and the lower surface layer material to each other,

the insole further including an ear portion provided along an outer edge of the main portion,

the ear portion including:

the upper edge portion that includes an outer edge of the upper surface layer material; and

a lower edge portion that includes an outer edge of the lower surface layer material,

in the method of manufacturing the insole,

when the heated object is arranged in the housing space, the upper edge portion and the lower edge portion overlapping each other between the first circumferential portion and the second circumferential portion, and the hot-melt being arranged between the upper edge portion and the lower edge portion, and

by heating the heated object through the first die and the second die, the upper edge portion and the lower edge portion being also joined to each other to thereby form the ear portion, and

the ear portion being provided along an outer edge of the upper surface of the main portion.

12. The method of manufacturing an insole according to claim 11, wherein

the upper edge portion and a portion of the upper surface layer material

excluding the upper edge portion are smoothly connected, and

a boundary between the lower edge portion and a portion of the lower surface layer material excluding the lower edge portion is bent.

13. A method of manufacturing an insole for a shoe using a first die and a second die,

the insole including:

a main portion that is a flat portion having a cushioning property and arranged in a manner that the main portion is to face a heel, a medial longitudinal arch portion, and a lateral longitudinal arch portion of a foot sole;

a covered portion formed in an area on a surface of the main portion, the surface being configured to be adjacent to the foot sole, the area being configured to face the medial longitudinal arch portion; and

a medial arch portion that is a portion having a cushioning property and arranged so as to cover the covered portion,

a surface of the medial arch portion opposite the surface to be adjacent to the foot sole being a lower surface,

the lower surface of the medial arch portion having a shape that matches the covered portion,

the main portion and the medial arch portion being each formed of a material having a different hardness,

the insole further including an upper surface layer material that is a sheet-shaped member covering an upper surface of the medial arch portion arranged in the covered portion and an upper surface of the main portion, the upper surface of the medial arch portion and the upper surface of the main portion being each a surface to be adjacent to the foot sole,

the first die including:

a first portion having a shape corresponding to a shape of the insole; and

a first circumferential portion surrounding the first portion,

the second die including:

a second portion that is a recessed portion configured to form a housing space between the second portion and the first portion when the second portion faces the first portion, the second portion being a portion having a shape corresponding to the shape of the insole; and

a second circumferential portion surrounding the second portion, and

in a heated object,

a hot-melt being arranged between the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material covering the upper surfaces, the medial arch portion being arranged in the covered portion, and

an upper edge portion being formed in the upper surface layer material so as to surround the upper surfaces,

the method of manufacturing the insole comprising:

arranging the heated object in the housing space formed between the first portion and the second portion, the housing space being formed by bringing the first circumferential portion and the second circumferential portion close to each other so that:

the upper surface layer material and the upper surfaces of the medial arch portion and of the main portion face the first portion of the first die;

a lower surface of the main portion faces the second portion of the second die; and

the upper edge portion is positioned between the first circumferential portion and the second circumferential portion; and

joining the upper surfaces of the medial arch portion and of the main portion and the upper surface layer material to each other by heating, through the first die and the second die, the heated object arranged in the housing space,

the heated object further including a cut portion provided along an outer edge of the upper surface of the main portion, the main portion and the cut portion being formed as an integrated member,

in the heated object, the upper surface layer material covering the upper surfaces of the medial arch portion and of the main portion, the upper edge portion of the upper surface layer material covering the cut portion, and the hot-melt being arranged between

the upper surface layer material and the medial arch portion, the main portion, and the cut portion,

in the method of manufacturing the insole,

the heated object being arranged in the housing space such that the upper edge portion and the cut portion are interposed between the first circumferential portion and the second circumferential portion, and

the medial arch portion, the main portion, and the cut portion being joined to the upper surface layer material by heating the heated object through the first die and the second die, and

the method of manufacturing the insole further comprising, subsequent to joining the medial arch portion, the main portion, and the cut portion and the upper surface layer material to each other, cutting off the cut portion and a portion of the upper surface layer material that covers the cut portion.

14. The method of manufacturing an insole according to any one of claims 8 to 13, wherein

the hardness of the material forming the medial arch portion is higher than the hardness of the material forming the main portion.

15. The method of manufacturing an insole according to any one of claims 8 to 14, wherein

the medial arch portion is formed of a styrene-based gel material.