WHAT IS CLAIMED IS:

1. A self-heating thermal-insulation film, comprising a structure of at least three layers, which, from outside to inside, are respectively:

an outer layer formed of an air permeable material;

a heat-generating layer loaded with heat-generating composition that generates heat on contact with air, at least an upper sealing surface of the heat-generating layer that is in contact with the outer layer being formed of an air permeable material; and

a thermal-insulation layer formed of a material having waterproof and thermal-insulation properties; wherein the thermal-insulation layer is a metal plating film made of metal and polyethylene terephthalate, oriented polypropylene, nylon, polyethylene or cast polypropylene film.

2. The self-heating thermal-insulation film according to claim 1, wherein the thermal-insulation layer is a metallized polyethylene terephthalate film made of polyethylene terephthalate film and metal.

3. The self-heating thermal-insulation film according to claim 2, wherein the metal used for the metallized polyethylene terephthalate film is aluminum, nickel, chromium or a mixture thereof.

4. The self-heating thermal-insulation film according to claim 1, wherein the thermal-insulation layer is provided with griddings, and the heat-generating composition is evenly distributed in the griddings.

5. The self-heating thermal-insulation film according to claim 4, wherein the griddings are formed by thermal bonding of the upper sealing surface of the heat-generating layer in contact with the outer layer and a lower sealing surface of heat-generating layer in contact with the thermal-insulation layer.

6. The self-heating thermal-insulation film according to claim 1, wherein the outer layer is made of nonwoven or woven fabric of natural or synthetic fiber.

7. The self-heating thermal-insulation film according to claim 1, wherein the self-heating thermal-insulation film is loaded in a sealed package before using.

8. The self-heating thermal-insulation film according to claim 1, wherein the heat-generating composition in the heat-generating layer comprises an oxidizable metal, active carbon, an inorganic metal salt, water, a polymer moisturizer, and an absorbent.

9. The self-heating thermal-insulation film according to any of the preceding claims, wherein the film is ergonomically designed in shape to be applied to various body parts.

10. The self-heating thermal-insulation film according to claim 9, wherein there is provided a layer of water-soluble hydrogel on the surface of the thermal-insulation layer that is in contact with a skin of a body part to which the self-heating thermal-insulation film is applied, the layer of soluble hydrogel being used for adhering the film to the skin.

11. The self-heating thermal-insulation film according to claim 10, wherein there is provided an active ingredient of a topically-applied health care product, a topically-applied medicine or a skincare product in the layer of water-soluble hydrogel.

12. The self-heating thermal-insulation film according to claim 9, wherein the heat-generating layer of the film maintains a heating temperature at 38℃ to 55℃,

and the heating time lasts 10 to 25 minutes.

13. The self-heating thermal-insulation film according to claim 12, wherein the heat-generating composition in the heat-generating layer comprises 30 to 50 parts by weight medical iron powder, 10 to 15 parts by weight active carbon, 1 to 5 parts by weight a metal salt, 3 to 13 parts by weight vermiculite, 1 to 5 parts by weight a water-absorbent resin, and 1 to 5 parts by weight water.

14. The self-heating thermal-insulation film according to claim 12, wherein the heat-generating composition in the heat-generating layer comprises 30 to 50 parts by weight medical iron powder, 10 to 15 parts by weight active carbon, 1 to 5 parts by weight a metal salt, 3 to 13 parts by weight vermiculite, 1 to 5 parts by weight a water-absorbent resin, 1 to 5 parts by weight water, and 1 to 5 parts by weight diatomite.

15. The self-heating thermal-insulation film according to claim 13, wherein the film is 2-8mm thick.

16. A method of using the self-heating thermal-insulation film according to claim 9, wherein the film is used in combination with a skincare product or a nourishing face mask for non-medical purposes.

17. A self-heating thermal-insulation three-dimensional face mask which has a facial concave-convex shape formed by joining two sheets together, wherein the face portion of the three-dimensional face mask is made of the self-heating thermal-insulation film according to claim 9.

18. The self-heating thermal-insulation three-dimensional face mask according to claim 17, wherein the three-dimensional face mask comprises a left side sheet and a

right side sheet respectively matching the left area of the face and the right area of the face, front edge portions of the left side sheet and the right side sheet are provided with an adhesive material, the left side sheet and the right side sheet are thereby adhered together by the adhesive material along a median line of the face to form a facial concave-convex shape.

19. The self-heating thermal-insulation three-dimensional face mask according to claim 18, wherein either of the front edge portions of the left side sheet and the right side sheet has a protrusion projecting outwards from above down and matching the shape of the left area or right area of the external nose, a mouth portion which is a notch matching the mouth is provided below the protrusion, a portion of the front edge portion below the notch has an arc shape with a certain radian and extends downwards to the bottom the face mask; except the notch matching the mouth, either of the front edge portions of the left side sheet and the right side sheet is provided with an adhesive material, and the left side sheet and the right side sheet are thereby adhered together by the adhesive material.

20. The self-heating thermal-insulation three-dimensional face mask according to claim 19, wherein a glabella portion of either of the front edge portions of the left side sheet and the right side sheet which faces a space between the user's eyebrows, just above the protrusion, is formed as an arc which is slightly concaved inwards.

21. The self-heating thermal-insulation three-dimensional face mask according to claim 19, wherein an eye-and-glabella portion of either of the front edge portions of the left side sheet and the right side sheet which faces the user's eyes and glabella, just above the protrusion, is formed as a notch which is concaved inwards; except the eye-and-glabella portion and the mouth portion, either of the front edge portions of the left side sheet and the right side sheet are provided with an adhesive material, and the left side sheet and the right side sheet are thereby adhered together by the adhesive

material.

22. The self-heating thermal-insulation three-dimensional face mask according to claim 18, there is a fixing strap provided on either of the rear edge portions of the left side sheet and the right side sheet, and there is a hook-and-loop fastener provided at the end of the fixing strap.

23. A method of using the self-heating thermal-insulation three-dimensional face mask according to claim 18, wherein the three-dimensional face mask is used in combination with a skincare product or a nourishing face mask for non-medical purpose.

24. A self-heating thermal-insulation face mask, wherein the face portion of the face mask is made of the self-heating thermal-insulation film according to claim 9.

25. The self-heating thermal-insulation face mask according to claim 24 wherein the face mask has notches matching the user’s nose and mouth, respectively.

26. The self-heating thermal-insulation face mask according to claim 25, wherein the face mask also has notches matching the user’s eyes.

27. The self-heating thermal-insulation face mask according to claim 26, wherein there is a fixing strap provided on either side of the face mask, and there is a hook-and-loop fastener provided at the end of the fixing strap.

28. A method of using the self-heating thermal-insulation face mask according to claim 24, wherein the face mask is used in combination with a skincare product or a nourishing face mask for non-medical purposes.

29. A self-heating thermal-insulation eye mask, wherein the eye portion of the eye mask is made of the self-heating thermal-insulation film according to claim 9.

30. The self-heating thermal-insulation eye mask according to claim 29, wherein the eye mask comprises hanging parts which have ears slits and can hang on the user’s ears.

31. The self-heating thermal-insulation eye mask according to claim 30, wherein a slit is vertically cut along a lower half of a central vertical axis of the eye mask.