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(54) **Electric household appliance**

Elektrisches Haushaltsgerät

Appareil électroménager

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Description

[0001] The present invention relates to an electric household appliance.

[0002] More specifically, the present invention relates to an electric household appliance of the type comprising a substantially parallelepiped-shaped casing having a top wall normally used by the user as a supporting and/or work surface.

[0003] The top walls of known electric household appliances of the above type are normally of two types.

[0004] A first is made of molded plastic material, is of relatively low rigidity, and therefore has obvious structural limitations as a supporting and/or work surface.

[0005] The second type comprises a fiberboard central panel; and a plastic outer rim normally made in two parts which are fitted about the central panel in respective operations and using respective assembly tools. US-A-5 044 705 discloses an insulation panel for an appliance for reducing noise, vibration and heat. The panel includes a first layer of enclosing material such a polyethylene or polypropylene which has greater tear resistance, a second layer of similar enclosing material is selected and configured so as to having a matching peripheral edge or contour with the first layer. The two layers are joined together around their peripheral edges so as to define and completely enclose an interior cavity into which a blanket of insulating material is dispersed of a generally uniform blanket thickness. It is also disclosed an automatic dishwasher which includes an enclosure which may be sheet metal or plastic; barrier pads of vibration dampening insulation material are applied to the top and side of the dishwasher. A blanket insulation including some of the above described insulation panels is placed around the automatic dishwasher so as to provide acoustical insulation adjacent the sides, top and rear wall portions of the automatic dishwasher.

[0006] It is an object of the present invention to provide an electric household appliance designed to eliminate the above drawbacks, and which is cheap and easy to produce.

[0007] According to the present invention, there is provided an electric household appliance as claimed in the accompanying Claims.

[0008] A non-limiting embodiment of the present invention will be described by way of example with reference to the accompanying drawings, in which:

Figure 1 shows a schematic view in perspective of a preferred embodiment of the electric household appliance according to the present invention;
Figure 2 shows a cross section of part of the electric household appliance in Figure 1;
Figure 3 shows an exploded view in perspective of the Figure 2 part.

[0009] Number 1 in Figure 1 indicates as a whole an electric household appliance defined, in the example

shown, by a washing machine comprising a substantially parallelepiped-shaped casing 2, in turn comprising a substantially vertical front wall 3 and a substantially vertical rear wall 4 parallel to each other, two substantially vertical lateral walls 5 perpendicular to walls 3 and 4, and a substantially horizontal top wall 6 perpendicular to walls 3, 4 and 5.

[0010] As shown in Figure 2, wall 6 comprises a panel 7, which is substantially cup-shaped with its concavity facing downwards, is made of molded, preferably injection-molded, plastic, and in turn comprises a flat central portion 8 bounded vertically by a substantially horizontal top face 9 and a substantially horizontal bottom face 10 parallel to each other; and an annular lateral edge 11 which extends about portion 8, is connected to portion 8 with a given radius of curvature, and is formed in one piece with portion 8.

[0011] Portion 8 has a top cavity 12 and an opposite bottom cavity 13, which are substantially rectangular and open outwards at top face 9 and bottom face 10 respectively.

[0012] Cavities 12 and 13 respectively house a top cover film 14 and a bottom cover film 15, which are substantially as thick as the depth of respective cavities 12, 13, and therefore substantially coplanar with respective faces 9, 10.

[0013] In a variation not shown, cavities 12, 13 are eliminated, and films 14, 15 are applied directly to faces 9, 10.

[0014] Films 14, 15 may be applied directly to panel 7 when molding panel 7, or may be glued to panel 7 later.

[0015] Films 14, 15 provide for a relatively high degree of rigidity of wall 6, thus reducing the weight and thickness of panel 7, while at the same time increasing the space available inside casing 2.

[0016] Using a film 15 of fireproof material enables any electric and/or electronic parts to be located close to wall 6, and using a film 14 of metal, e.g. aluminium or stainless steel, provides for improving the appearance of wall 6 and, hence, of washing machine 1.

[0017] Film 14 may also be made of a thermoplastic material, a thermosetting resin, a composite material, or a laminate comprising at least two layers.

Claims

1. An electric household appliance comprising a substantially parallelepiped-shaped casing (2) having a substantially horizontal top wall (6) comprising a panel (7) of plastic material; whereby the top wall (6) also comprises a top cover film (14) and a bottom cover film (15) applied to a top face (9) and a bottom face (10), respectively, of said panel (7) **characterized in that** the bottom cover film (15) is made of fireproof material.
2. An electric household appliance as claimed in Claim 1, wherein the panel (7) comprises a substantially

flat central portion (8) bounded by said top face and said bottom face (9, 10); and an annular lateral edge (11) which extends about the central portion (8), is connected to the central portion (8), and is formed in one piece with the central portion (8).

3. An electric household appliance as claimed in Claim 1 or 2, wherein the panel (7) has a top cavity (12) and a bottom cavity (13) for housing the top cover film (14) and bottom cover film (15) respectively; the top and bottom cover films (14, 15) being substantially coplanar with the respective top and bottom faces (9, 10).
4. An electric household appliance as claimed in any one of the foregoing Claims, wherein the top cover film (14) is made of metal.
5. An electric household appliance as claimed in any one of Claims 1 to 3, wherein the top cover film (14) is made of a thermoplastic material.
6. An electric household appliance as claimed in any one of Claims 1 to 3, wherein the top cover film (14) is made of a thermosetting resin.
7. An electric household appliance as claimed in any one of Claims 1 to 3, wherein the top cover film (14) is made of a composite material.
8. An electric household appliance as claimed in any one of Claims 1 to 3, wherein the top cover film (14) is a laminate comprising at least two layers.
9. An electric household appliance as claimed in any one of the foregoing Claims, wherein the top and bottom cover films (14, 15) are glued to said panel (7).
10. An electric household appliance as claimed in any one of Claims 1 to 8, wherein the top and bottom cover films (14, 15) are applied to said panel (7) when molding the panel (7).

Patentansprüche

1. Elektrisches Haushaltsgerät, umfassend ein im Wesentlichen parallelepipedförmiges Gehäuse (2) mit einer im Wesentlichen horizontalen oberen Wand (6), die eine Platte (7) aus Kunststoffmaterial umfasst, wobei die obere Wand (6) auch eine obere Abdeckfolie (14) und eine untere Abdeckfolie (15) umfasst, die auf einer oberen Fläche (9) bzw. einer unteren Fläche (10) der Platte (7) aufgebracht sind, **dadurch gekennzeichnet, dass** die untere Abdeckfolie (15) aus Brandschutzmaterial hergestellt ist.

2. Elektrisches Haushaltsgerät nach Anspruch 1, wobei die Platte (7) einen im Wesentlichen flachen mittleren Abschnitt (8), der durch die obere Fläche und die untere Fläche (9, 10) begrenzt ist, und einen ringförmigen seitlichen Rand (11) umfasst, der sich um den mittleren Abschnitt (8) erstreckt, mit dem mittleren Abschnitt (8) verbunden ist und einstückig mit dem mittleren Abschnitt (8) ausgebildet ist.
3. Elektrisches Haushaltsgerät nach Anspruch 1 oder 2, wobei die Platte (7) zur Unterbringung der oberen Abdeckfolie (14) und der unteren Abdeckfolie (15) einen oberen Hohlraum (12) bzw. einen unteren Hohlraum (13) hat, wobei die obere und die untere Abdeckfolie (14, 15) zu der oberen bzw. unteren Fläche (9, 10) im Wesentlichen koplanar sind.
4. Elektrisches Haushaltsgerät nach einem der vorhergehenden Ansprüche, wobei die obere Abdeckfolie (14) aus Metall hergestellt ist.
5. Elektrisches Haushaltsgerät nach einem der Ansprüche 1 bis 3, wobei die obere Abdeckfolie (14) aus einem thermoplastischen Material hergestellt ist.
6. Elektrisches Haushaltsgerät nach einem der Ansprüche 1 bis 3, wobei die obere Abdeckfolie (14) aus einem duromeren Harz hergestellt ist.
7. Elektrisches Haushaltsgerät nach einem der Ansprüche 1 bis 3, wobei die obere Abdeckfolie (14) aus einem Verbundmaterial hergestellt ist.
8. Elektrisches Haushaltsgerät nach einem der Ansprüche 1 bis 3, wobei die obere Abdeckfolie (14) ein Laminat ist, das mindestens zwei Schichten umfasst.
9. Elektrisches Haushaltsgerät nach einem der vorhergehenden Ansprüche, wobei die obere und die untere Abdeckfolie (14, 15) an die Platte (7) geklebt sind.
10. Elektrisches Haushaltsgerät nach einem der Ansprüche 1 bis 8, wobei die obere und die untere Abdeckfolie (14, 15) beim Formen der Platte (7) auf die Platte (7) aufgebracht werden.

Revendications

1. Appareil ménager électrique comprenant une caisse (2) de forme essentiellement parallélépipédique comportant une paroi supérieure (6) essentiellement horizontale comprenant un panneau (7) en matière plastique ; la paroi supérieure (6) comprenant également un film de revêtement supérieur (14) et un

film de revêtement inférieur (15) appliqués, respectivement, à une face supérieure (9) et une face inférieure (10) dudit panneau (7), **caractérisé en ce que** le film de revêtement inférieur (15) est constitué d'un matériau à l'épreuve du feu. 5

2. Appareil ménager électrique selon la revendication 1, dans lequel le panneau (7) comprend une partie centrale (8) essentiellement plane délimitée par ladite face supérieure et ladite face inférieure (9, 10) ; et un bord latéral annulaire (11) qui s'étend autour de la partie centrale (8), est raccordé à la partie centrale (8), et est formé d'un seul tenant avec la partie centrale (8). 10 15
3. Appareil ménager électrique selon la revendication 1 ou 2, dans lequel le panneau (7) comporte une cavité supérieure (12) et une cavité inférieure (13) destinées à recevoir, respectivement, le film de revêtement supérieur (14) et le film de revêtement inférieur (15) ; les films de revêtement supérieur et inférieur (14, 15) étant essentiellement coplanaires avec les faces supérieure et inférieure (9, 10) respectives. 20 25
4. Appareil ménager électrique selon l'une quelconque des revendications précédentes, dans lequel le film de revêtement supérieur (14) est constitué de métal.
5. Appareil ménager électrique selon l'une quelconque des revendications 1 à 3, dans lequel le film de revêtement supérieur (14) est constitué d'un matériau thermoplastique. 30
6. Appareil ménager électrique selon l'une quelconque des revendications 1 à 3, dans lequel le film de revêtement supérieur (14) est constitué d'une résine thermodurcissable. 35
7. Appareil ménager électrique selon l'une quelconque des revendications 1 à 3, dans lequel le film de revêtement supérieur (14) est constitué d'un matériau composite. 40
8. Appareil ménager électrique selon l'une quelconque des revendications 1 à 3, dans lequel le film de revêtement supérieur (14) est un stratifié comprenant au moins deux couches. 45
9. Appareil ménager électrique selon l'une quelconque des revendications précédentes, dans lequel les films de revêtement supérieur et inférieur (14, 15) sont collés audit panneau (7). 50
10. Appareil ménager électrique selon l'une quelconque des revendications 1 à 8, dans lequel les films de revêtement supérieur et inférieur (14, 15) sont appliqués sur ledit panneau (7) lors du moulage du pan- 55

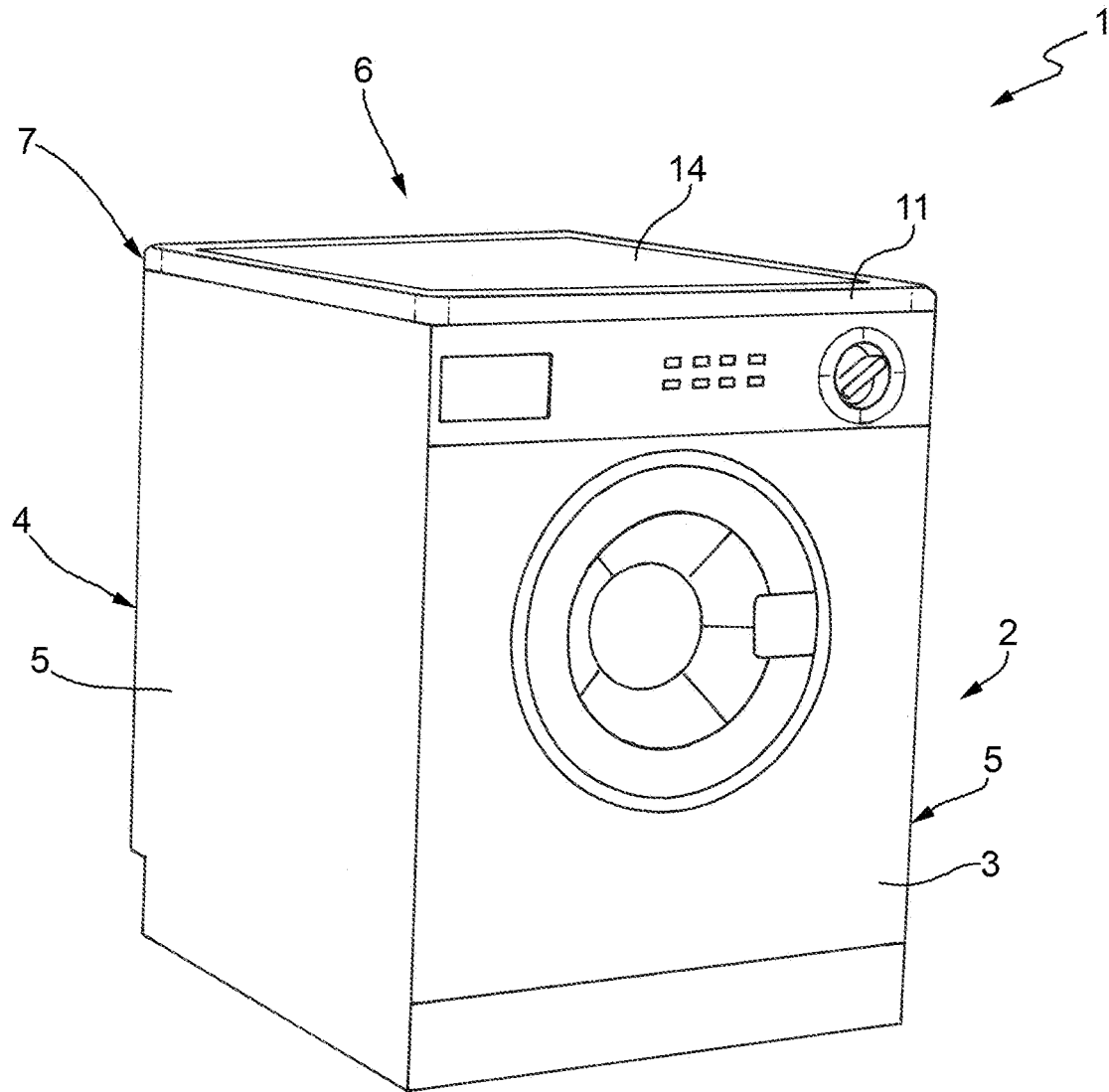


FIG.1

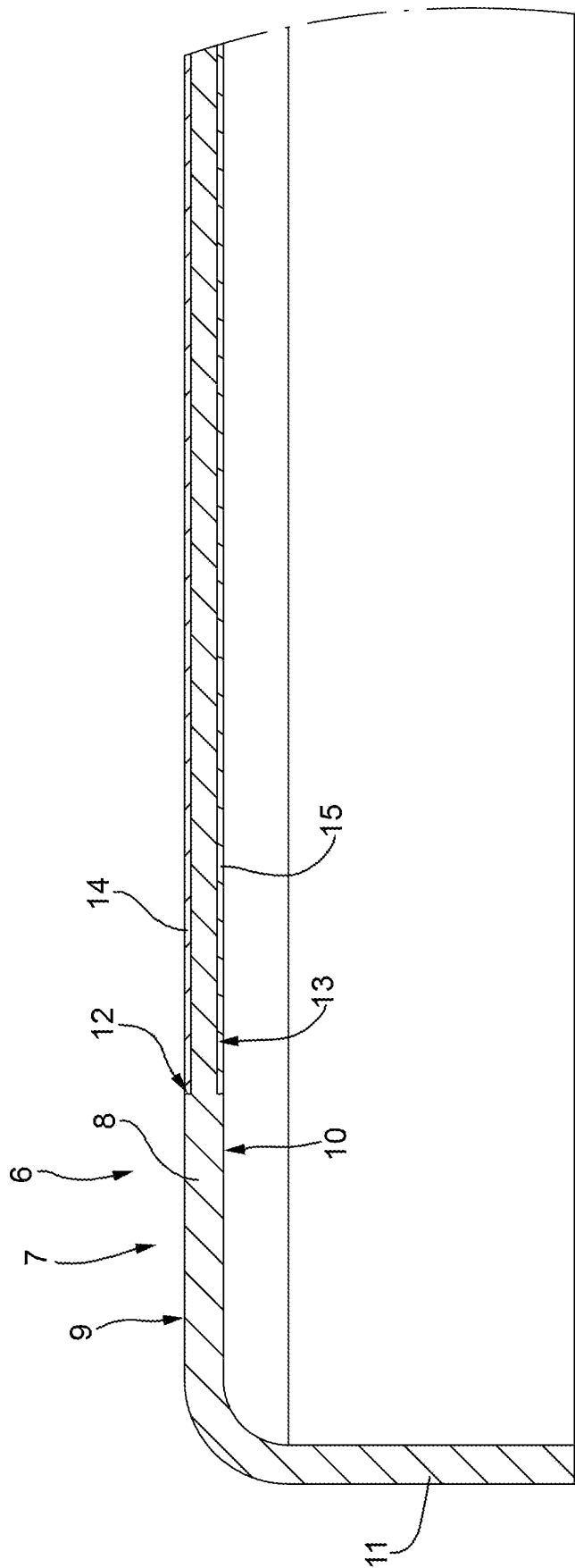


FIG.2

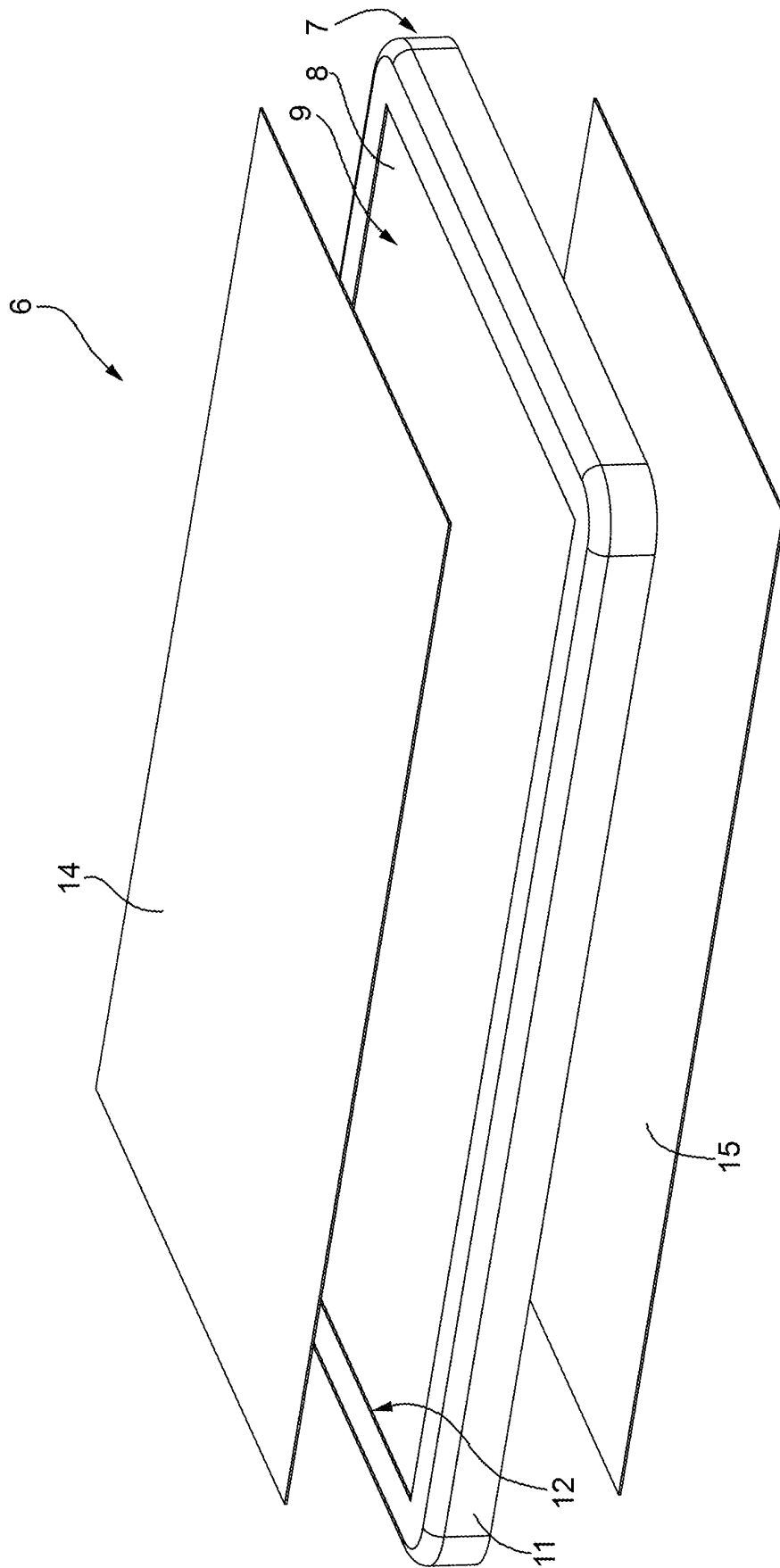


FIG.3

REFERENCES CITED IN THE DESCRIPTION

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