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(54) Door for household appliance

(57) A door for electric household appliance is described, comprising an annular supporting structure (3) for at least one first transparent glass plate (4) having width and height smaller than the ones of the supporting structure (3). The periphery (6) of said at least one first glass plate (4) is coupled to said supporting structure (3) and the latter is provided with means (7) for the hingement of the door (1, 100) to the electric household appliance (2) in correspondence of a cavity (200) of the latter. The at least one first glass plate (4) is faced toward the cavity (200) of the appliance (1, 100) with door (1) closed. The door comprises a second glass plate (8, 80) glued onto a surface (9) of the supporting structure (3) in order to be opposite to said first glass plate (4) and faced toward the exterior of the appliance (2). The second glass plate (8, 80) comprises a first transparent part (10) in correspondence of the first glass plate (4) and it has height and width smaller than the latter and a second opaque part (11, 12) in correspondence of the periphery (6) of the first glass plate (4).

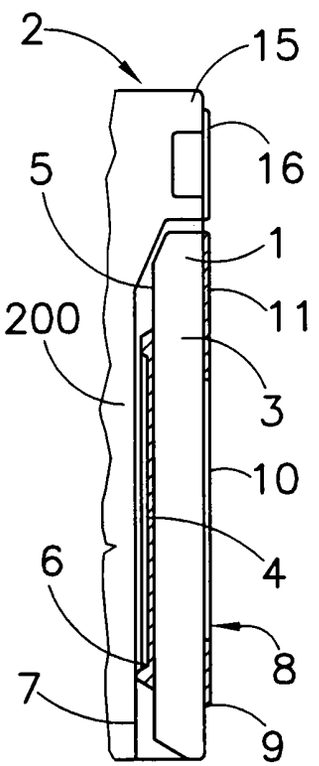

FIG.2

EP 1 489 362 A2

Description

[0001] The present invention concerns a door for electric household appliance, in particular a door for a food oven.

[0002] Several types of doors are generally known to close the cavity of the food oven that are made up of a structure hinged to the food oven and comprising a glass plate as viewer of the cavity of the oven from the outside. The structure of the metal sheet of the door has a drawn zone in order to allow the levelling of the glass plate with the plane of the same door; the drawn zone is visible from the outside.

[0003] In view of the state of the art, object of the present invention is to provide a door for electric household appliance that solves the aforesaid inconvenience.

[0004] According to the present invention, such object is attained by means of a door for electric household appliance, comprising a supporting structure for at least one first transparent glass plate having width and height smaller than the ones of the supporting structure, the periphery of said at least one first glass plate being coupled to said supporting structure, said supporting structure being provided with means for the hingement of the door to said electric household appliance in correspondence of a cavity of the latter, said at least one first glass plate being faced toward said cavity of the appliance with door closed, characterised in that it comprises a second glass plate glued onto a surface of said supporting structure so as to be opposite to said first glass plate and to be faced toward the exterior of the appliance, said second glass plate comprising a transparent first part in correspondence of said first glass plate and having height and width smaller than the latter and a second opaque part in correspondence of the periphery of said first glass plate.

[0005] The characteristics and the advantages of the present invention will become evident from the following detailed description of an embodiment thereof, that is illustrated as a non-limiting example in the enclosed drawings, in which:

Figure 1 is a front view of a door of a household food oven according to an embodiment of the present invention;

Figure 2 is a schematic side view of the door in Figure 1;

Figure 3 is a front view of a door for household food oven according to a variation of the embodiment of the present invention;

Figure 4 is a schematic side view of the door in Figure 3.

[0006] With reference to Figures 1 and 2 a door 1 for a household food oven 2 according to an embodiment of the present invention is shown. The door 1, shown in closed position, comprises an annular supporting structure 3, generally of sheet metal and with squared or rectangular shape, for a transparent glass plate 4 positioned on the surface 5 of the structure 3 that looks out on the cavity 200 of the household oven 2; the glass plate 4 has width and height (for example height of 400 millimetres and width of 260 millimetres) smaller than the supporting structure 3. The periphery 6 of the glass plate 4 is coupled to the supporting structure 3 by means of gluing of the plate 4 on the structure and drawing of the sheet metal of the structure 3 in the zones in correspondence of the periphery 6 of the glass plate 4. The supporting structure 3 is provided with means 7 for the hingement of the same with the oven 2 in correspondence of the cavity of the latter.

[0007] The door 1 comprises another glass plate 8 glued onto the external surface 9 of the structure 3 that is opposite to the surface 5 and looks out on the exterior of the oven 2. The glass plate 8 has a good mechanical strength and a good resistance to the high temperatures. Glues utilised in order to glue said glass plate 8 are the TECBOND 232 or the DOWCORNING 7091B1.

[0008] The glass plate 8 comprises a first transparent part 10 in correspondence of the glass plate 4 but with height and width (for example height of 380 millimetres and width of 200 millimetres) smaller than the ones of the glass plate 4.

[0009] The glass plate 8 comprises a second opaque part 11 in correspondence of the periphery 6 of the glass plate 4; in this way the drawn zones of the sheet metal of the structure 3 in correspondence of the periphery 6 of the glass plate 4 are not visible from the outside. The opaque part 11 is preferably silk-screen printed or coloured according to the aesthetic requirements and it extends so as to entirely cover the upper part of the door 1 up to the top of the same.

[0010] The oven 2 also comprises a control panel 15 with an additional glass plate 16 glued onto the external surface in order to cover devices of the oven 2 as the temperature display, timer and other ones. Said additional glass plate 16 is normally lined up with the glass plate 8 of the door 1 so as to obtain a single external front profile of the food oven 2.

[0011] In Figures 3 and 4 the door 100 for household food oven according to a variation of the embodiment of the invention is shown. The door 100 differs from the door 1 only in that the opaque part 12 of the glass plate 80 glued onto the external surface 9 of the structure 3 extends in the upper part of the door 100 but not up to the top of the same.

Claims

1. Door for electric household appliance, comprising an annular supporting structure (3) for at least one first transparent glass plate (4) having width and height smaller than the ones of the supporting structure (3), the periphery (6) of said at least one first glass plate (4) being coupled to said supporting

structure (3), said supporting structure (3) being provided with means (7) for the hingement of the door (1, 100) to said electric household appliance (2) in correspondence of a cavity (200) of the latter, said at least one first glass plate (4) being faced toward said cavity (200) of the appliance (1, 100) with door (1) closed, **characterised in that** it comprises a second glass plate (8, 80) glued onto a surface (9) of said supporting structure (3) so as to be opposite to said first glass plate (4) and to be faced toward the exterior of the appliance (2), said second glass plate (8, 80) comprising a first transparent part (10) in correspondence of said first glass plate (4) and having height and width smaller than the latter and a second opaque part (11, 12) in correspondence of the periphery (6) of said first glass plate (4).

2. Door according to claim 1, **characterised in that** said appliance comprises a control panel (15) and an additional glass plate (16) glued onto said control panel (15).

3. Door according to claim 2, **characterised in that** said additional glass plate (16) is lined up with said second glass plate (8, 80) of the door (1, 100) in order to obtain a single external front profile of the appliance (2).

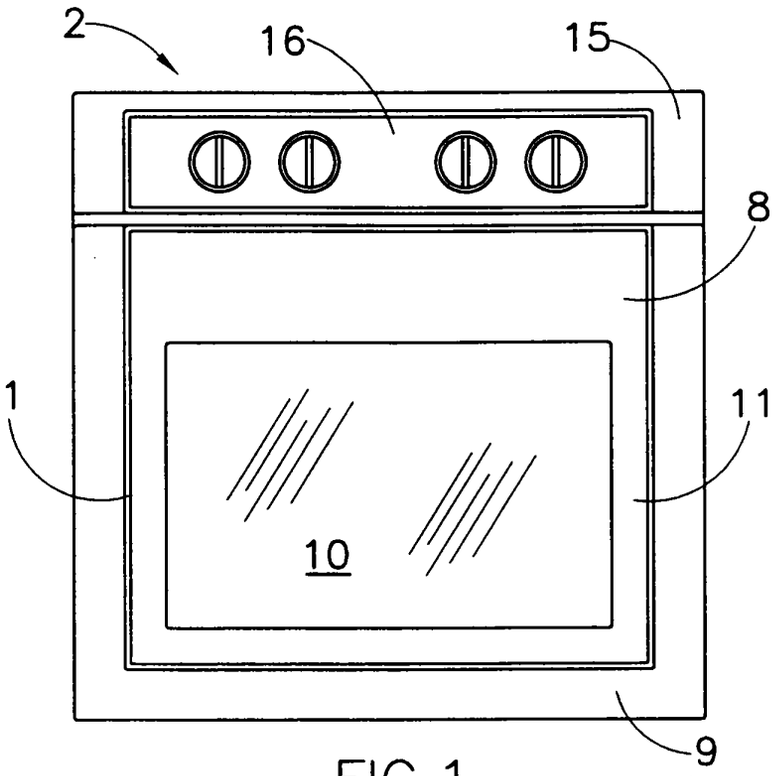

FIG.1

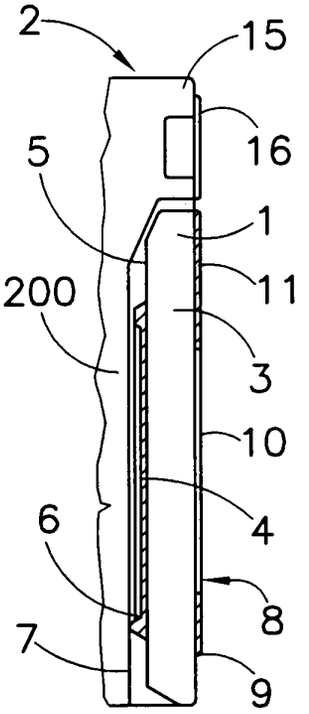

FIG.2

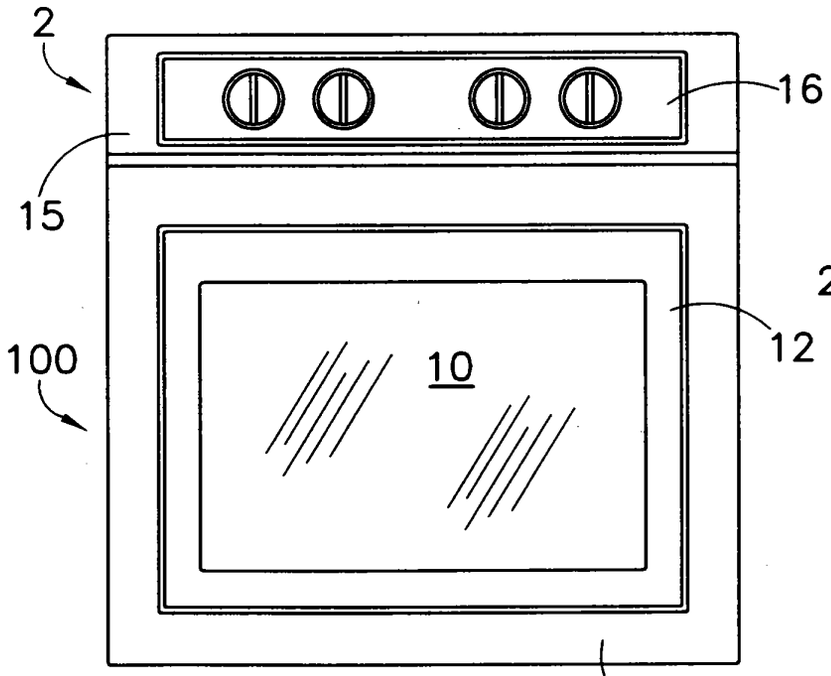

FIG.3

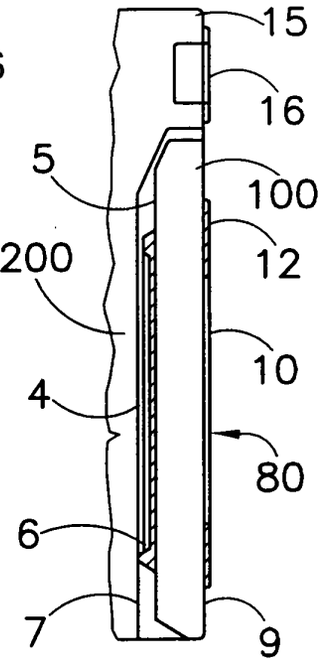

FIG.4