Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).
Description

[0001] The present invention relates to a packing element according to the preamble of claim 1, that prevents the household appliances from being damaged during transportation and which is known e.g. from DE8709277U.

[0002] Manufactured products, preferably household appliances, can be damaged since they are pressed in between the pallets during loading onto the transport vehicles and carried by loading on the forklifts. On the other hand, the household appliances can slide in the transport vehicle due to jolting and press onto each other. Similar damages may be incurred on the household appliances that slide, press or are pressed. Moreover, the household appliances that are placed on top of each other during storage, can damage by exerting pressure on the appliances in their vicinity. Various packing and support elements are used in the technique in order to prevent the damages that occur due to all of these reasons.

[0003] On the other hand, the market conditions and consumer expectations have created the need for some household appliances such as built-in cookers, ovens and complementary products such as televisions and DVD players to be packed together when offering for sale.

[0004] This need is particularly at the highest level in implementations of built-in ovens and cookers wherein one of the control knobs of a household appliance is on the other, for example on the cooker, and to use one household appliance, the other is absolutely required. The user cannot use these separately packed household appliances without buying them together.

[0005] However, for example a different model of a built-in oven can be selected to be used together with a built-in cooker. In such a case, the requirement arises for different packing and support elements suitable for each pair of built-in oven built-in cooker to be packed together. This results in the increase of production and inventory costs.

[0006] Moreover, the use of a multitude number of different packing elements increases the amount of waste materials during the installation of household appliances thereby is harmful for the environment.

[0007] In the state of the art Japanese Patent No JP6135435, an implementation is explained wherein one of the control knobs of a household appliance is on the other, that prevents the household appliances from being damaged during transportation and which is known e.g. from DE8709277U.

[0008] In the preferred embodiment of the present invention, the packing element comprises a housing each on the first and second support members, configured to be of a size suitable with the dimensions of the first and complementary appliance. A first support member each is disposed on the right and left sides of the first appliance and a second support member each is disposed on the right and left sides of the complementary appliance for supporting from the sides thereof. Afterwards, the two appliances are positioned one over the other and the support members are joined by inserting the protrusions into the recesses. Thus, the first appliance and the complementary appliance wrapped by the packing element can be placed into the package together.

[0012] In the preferred embodiment of the present invention, the packing element comprises a housing each on the first and second support members, configured to be of a size suitable with the dimensions of the first and complementary appliance. A first support member each is disposed on the right and left sides of the first appliance and a second support member each is disposed on the right and left sides of the complementary appliance for supporting from the sides thereof. Afterwards, the two appliances are positioned one over the other and the support members are joined by inserting the protrusions into the recesses. Thus, the first appliance and the complementary appliance wrapped by the packing element can be placed into the package together.

[0013] In a preferred embodiment of the present invention, a built-in oven as the first appliance and a built-in cooker as the complementary appliance are packed. In this embodiment, the housings disposed on the first and second support members are respectively configured to be of a shape and size suitable for supporting the built-in oven and the built-in cooker.

[0014] According to the present invention, the second support member placed on top comprises an arm that extends downward and fortifies the joint when joined with the first support member.

[0015] In the preferred embodiment of the present invention, the support members are made of a material with a high damping feature such as styropor etc.

[0016] By means of the packing element of the present invention, the household appliances featured as complementary products can be packed together and offered for sale in a single package thereby not only ease of transportation and storage is provided but also customer satisfaction of the buyer is maintained. Moreover, by eliminating the need for two separate packages, the amount of waste material decreases after the installation of the household appliance and thereby the environment is harmed less.

[0017] The packing element realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

[0018] Figure 1 - is the perspective view of a packing element and the packed household appliances.

[0019] Figure 2 - is the bottom view of an embodiment of the present invention.

[0020] Figure 3 - is the top view of an embodiment of the present invention.
Figure 4 - is the perspective view of an embodiment of the present invention and the packed household appliances.

Figure 5 - is the perspective view of an embodiment of the present invention and the packed first household appliance.

The elements illustrated in the figures are numbered as follows:

1. Packing element
2. First support member
3. Second support member
4. Coupling means
5. Recess
6. Protrusion
7. Housing
8. Arm

A packing element (1) is used for packing a first appliance (FA) and a complementary appliance (CA) to be sold together, having virtually similarly shaped bases, together in a single package (D) thereby allowing safe transportation.

The packing element (1) prevents damages in the first and the complementary appliances (FA, CA) in the case that the package (D) slides, falls over or is subjected to various forces by colliding with the side walls of the transport vehicle.

The packing element (1) is suitable for packing a first appliance (FA) and a complementary appliance (CA), having virtually similarly shaped bases in a single package (D) and comprises the features of claim 1.

In a preferred embodiment of the present invention, the coupling means (4) comprises a recess (5) arranged on the first support member (2) and a protrusion (6) on the second support member (3) aligned with the recess (5). In this embodiment, when the second support member (3) is emplaced on or on the side of the first support member (2), the protrusion (6) is seated in the recess (5).

In a preferred embodiment of the present invention, the packing element (1) comprises a housing (7) each situated on the first and second support members (2, 3), configured to be of a size suitable with the dimensions of the first and complementary appliances (FA, CA). Preferably, a first and a second support member (2, 3) each is disposed respectively on both sides of the first and complementary appliances (FA, CA). Afterwards the two appliances (FA, CA) are positioned one over the other such that the complementary appliance (CA) is on the first appliance (FA) and the first and second support members (2, 3) are joined by inserting the protrusions (6) into the recesses (5). Thus, both the first appliance (FA) and the complementary appliance (CA) are emplaced in the packing element (1) and the packing element (1) in this position can be placed into the package (D).

In a preferred embodiment of the present invention, the packing element (1) is used in packaging a built-in oven as the first appliance (FA) and a built-in cooker as the complementary appliance (CA). In this embodiment, the housing (7) formed by the first support member (2) is wide enough to entirely encompass the side walls of the built-in oven (FA). The other housing (7) formed by the second support member (3) is such that the cook top of the built-in cooker (CA) is clasped from above and below.

According to the present invention, the second support member (3) placed at the top comprises an arm (8) arranged beneath the housing (7) that extends towards the first support member (2) when joined with the first support member (2). The arm (8) supports the complementary appliance (CA) from below and serves as a buffer between the first appliance (FA) and the complementary appliance (CA). Thus, the complementary appliance (CA) is prevented from sliding sideways on the first appliance (FA).

In the preferred embodiment of the present invention, the first and second support members (2, 3) are made of a material with a high damping feature such as styropor etc.

By means of the packing element (1) of the present invention, the household appliances (FA, CA) to be offered for sale together can be packaged lightweight, with less cost and harming the environment less.

Claims

1. A packing element (1) suitable for packing a first appliance (FA) and a complementary appliance (CA) having virtually similarly shaped bases in a single package (D) and comprising:
   - a first support member (2) that at least partially surrounds the first appliance (FA) and supports to protect it from the forces acting thereon,
   - a second support member (3) that at least partially surrounds the complementary appliance (CA) and supports to protect it from the forces acting thereon and
   - a coupling means (4) disposed on the first support member (2) and/or the second support member (3) for fastening them to each other when the support members (2, 3) are placed one over the other thereby enabling a first appliance (FA) and a complementary appliance (CA) to be packed in a single package (D) characterized by the second support member (3) comprising an arm (8) arranged beneath the housing (7) situated on the first support member (2) that extends towards the first support member (2) when joined with the first support member (2), whereby the arm (8) is adapted to support the complementary appliance (CA) and prevents the com-
2. A packing element (1) as in Claim 1, characterized by a coupling means (4) comprising a recess (5) arranged on the first support member (2) and a protrusion (6) situated on the second support member (3) aligned with the recess (5) and is seated in the recess (5) when the second support member (3) is emplaced on or on the side of the first support member (2).

3. A packing element (1) as in Claim 1 or 2, characterized by a first support member (2) comprising a housing (7) configured to be of a size suitable with the dimensions of the first appliance (FA) and the second support member (3) comprising another housing (7) configured to be of a size suitable with the dimensions of the complementary appliance (CA).

4. A packing element (1) as in any one of the above Claims, characterized by a first and second support member (2, 3) each disposed respectively on both sides of the first and complementary appliances (FA, CA).

5. A packing element (1) as in any one of the above Claims, used in packing a built-in oven as the first appliance (FA) and a built-in cooker as the complementary appliance (CA) in a single package (D).

6. A packing element (1) as in Claim 5, characterized by a housing (7) disposed on the first support member (2) that is wide enough to entirely encompass the side walls of the built-in oven (FA) and another housing (7) disposed on the second support member (3) such that the cook top of the built-in cooker (CA) is clasped from above and below.

7. A packing element (1) as in any one of the above Claims, characterized by a first and second support member (2, 3) made of a material with a high damping feature such as styropor.

Patentansprüche

1. Verpackungselement (1), geeignet für ein erstes Gerät (FA) und ein Zusatzgerät (CA) mit praktisch ähnlich geformter Basis in einer einzelnen Verpackung (D), und umfassend:
   - ein erstes Stützelement (2), das das erste Gerät (FA) wenigstens teilweise umgibt und stützt, um es vor dem Kräften zu schützen, die darauf einwirken,
   - ein zweites Stützelement (3), das das Zusatzgerät (CA) wenigstens teilweise umgibt und stützt, um es vor dem Kräften zu schützen, die darauf einwirken, und
   - ein Koppelungsmittel (4), das an dem ersten Stützelement (2) und/oder dem zweiten Stützelement (3) angeordnet ist, um diese aneinander zu befestigen, wobei die Stützelemente (2, 3) übereinander angeordnet sind, wodurch ein erstes Gerät (FA) und ein Zusatzgerät (CA) in einer einzelnen Verpackung (D) verpackt werden können, dadurch gekennzeichnet, dass das zweite Stützelement (3) einen Arm (8) umfasst, der unter dem Gehäuse (7) am ersten Stützelement (2) angeordnet ist, das sich zum ersten Stützelement (2) erstreckt, wenn es mit dem ersten Stützelement (2) verbunden ist, wodurch der Arm (8) dazu angepasst ist, das Zusatzgerät (CA) zu stützen, und verhindert, dass das Zusatzgerät (CA) seitlich am ersten Gerät (FA) verrutscht.

2. Verpackungselement (1) nach Anspruch 1, gekennzeichnet durch ein Kupplungsmittel (4), das eine Vertiefung (5), die an dem ersten Stützelement (2) angeordnet ist, und einen Vorsprung (6) umfasst, der an dem zweiten Stützelement (3) ausgebildet ist und mit der Vertiefung (5) übereinstimmt und in der Vertiefung (5) sitzt, wenn das zweite Stützelement (3) auf dem ersten Stützelement (2) oder seitlich davon angeordnet wird.

3. Verpackungselement (1) nach Anspruch 1 oder 2, gekennzeichnet durch ein erstes Stützelement (2), das ein Gehäuse (7) umfasst, das derart konfiguriert ist, dass seine Größe geeignet für die Abmessungen des ersten Geräts (FA) ist, und das zweite Stützelement (3), das ein anderes Gehäuse (7) umfasst, das derart konfiguriert ist, dass seine Größe geeignet für die Abmessungen des Zusatzgeräts (CA) ist.

4. Verpackungselement (1) nach einem der vorangehenden Ansprüche, gekennzeichnet durch ein erstes und zweites Stützelement (2, 3), die jeweils auf beiden Seiten des ersten und des Zusatzgeräts (FA, CA) angeordnet sind.

5. Verpackungselement (1) nach einem der vorangehenden Ansprüche, das zum Verpacken eines eingebauten Ofens als das erste Gerät (FA) und eines eingebauten Herds als Zusatzgerät (CA) in einer einzelnen Verpackung (D) benutzt wird.

6. Verpackungselement (1) nach Anspruch 5, gekennzeichnet durch ein Gehäuse (7), das an dem ersten Stützelement (2) angeordnet ist und breit genug ist, um die Seitenwände des eingebauten Ofens (FA) vollständig zu umgeben, und ein anderes Gehäuse (7), das an dem zweiten Stützelement (3) angeord-
Verpackungselement (1) nach einem der vorangehenden Ansprüche, gekennzeichnet durch ein erstes und zweites Stützelement (2, 3), die aus einem Material mit einer hohen Dämpfungsfunktion wie etwa Styropor hergestellt sind.

Revendications

1. Un élément d’emballage (1) approprié pour emballer un premier appareil (FA) et un appareil complémentaire (CA) ayant des bases pratiquement de forme similaire dans un seul paquet (D) et comprenant :
   - un premier élément de support (2) qui entoure au moins partiellement le premier appareil (FA) et le supporte à le protéger contre les forces agissant sur celui-ci,
   - un deuxième élément de support (3) qui entoure au moins partiellement l’appareil complémentaire (CA) et le supporte à le protéger contre les forces agissant sur celui-ci et
   - un moyen de couplage (4) disposé sur le premier élément de support (2) et/ou le deuxième élément de support (3) pour les fixer les uns aux autres lorsque les éléments de support (2, 3) sont placés l’un sur l’autre, donc permettant à un premier appareil (FA) et un appareil complémentaire (CA) d’être emballés dans un seul paquet (D), caractérisé par le deuxième élément de support (3) comprenant un bras (8) disposé sous le logement (7) sur le premier élément de support (2) qui s’étend vers le premier élément de support (2) lorsqu’il est joint avec le premier élément de support (2), où le bras (8) est approprié à supporter l’appareil complémentaire (CA) et empêche l’appareil complémentaire (CA) de glisser latéralement sur le premier appareil (FA).

2. Un élément d’emballage (1) selon la Revendication 1, caractérisé par un moyen de couplage (4) comprenant un évidement (5) situé sur le premier élément de support (2) et une protubérance (6) située sur le deuxième élément de support (3) alignée avec l’évidement (5) et placée dans l’évidement (5) lorsque le deuxième élément de support (3) est placé sur le premier élément de support (2) ou sur le côté de celui-ci.

3. Un élément d’emballage (1) selon la Revendication 1 ou 2, caractérisé par un premier élément de support (2) comprenant un logement (7) configuré pour être d’une taille adaptée aux dimensions du premier appareil (FA) et le deuxième élément de support (3) comprenant un autre logement (7) configuré pour être d’une taille adaptée aux dimensions de l’appareil complémentaire (CA).

4. Un élément d’emballage (1) selon l’une quelconque des revendications précédentes, caractérisé par un premier et un deuxième élément de support (2, 3), chacun disposé respectivement sur les deux côtés du premier appareil et l’appareil complémentaire (FA, CA).

5. Un élément d’emballage (1) selon l’une quelconque des revendications précédentes, utilisé pour emballer un four encastré comme le premier appareil (FA) et une cuisinière encastrée comme l’appareil complémentaire (CA) dans un seul paquet (D).

6. Un élément d’emballage (1) selon la Revendication 5, caractérisé par un logement (7) disposé sur le premier élément de support (2) qui est suffisamment large pour inclure entièrement les parois latérales du four encastré (FA) et un autre logement (7) disposé sur le deuxième élément de support (3) de telle sorte que la table de cuisson de la cuisinière encastrée (CA) est saisie par le haut et par le bas.

7. Un élément d’emballage (1) selon l’une quelconque des revendications précédentes, caractérisé par un premier et deuxième élément de support (2, 3) produits en un matériau avec un facteur d’amortissement élevé comme mousse de polyuréthane.
REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader’s convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- DE 8709277 U [0001]
- JP 6135435 B [0007]
- WO 03043893 A [0008]