

Process for the application of a revenue seal to a cigarette
pack.

- 5 The invention relates to a process for the application of a revenue seal to a cigarette pack.

From the magazine article by Hartmann, Rolf: "Progress in the process of preliminary surface treatment", in: DE-Z.: Papier
10 + Kunststoff-Verarbeiter 3/1988, pages 9-11, 14, it is known that packaging materials frequently require a preliminary treatment in order to ensure a better adhesion of the glue or adhesive. For that purpose, for example a treatment by means of corona-discharge or a plasma-treatment is used.

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Furthermore, the use of lasers in packaging is also known. With these, amongst other things, individual layers of labels are burned out for the purpose of inscription (DE 43 32 853 A1), cigarettes are perforated to produce an area which is
20 permeable to air (DE 42 18 471 A1) or weakening lines in packaging material are produced, which consist either of a linear continuous material weakening (DE 41 13 714 A1) or of a line of material completely cut in two sectionwise (EP 05 40 184 A1).

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In Germany and also in many other countries, a revenue seal must be glued onto all cigarette packaging and it must be done in such a way that the revenue seal is destroyed when

the pack is opened. As a rule, the revenue seal is stuck onto the packet with ordinary glue in such a manner that it has to be destroyed on opening.

5 In the case of uncoated packaging with distinct side edges, this causes few problems; however, in the case of packaging with chamfered edges, which additionally, is optionally provided with a smooth coating, the revenue seal easily becomes detached from the packaging or it remains suspended
10 from the lower or upper part of the packet when the pack is opened.

It is, therefore, the object of the invention to improve the adhesion of the revenue seal to cigarette packs which are
15 provided with a smooth coating or which, because of the particular shape of the pack, have a smaller surface for glueing than is the case with conventional cigarette packs.

A process of the initially-mentioned type serves as a means
20 of achieving said object, by which process the coating is destroyed by irradiation with a laser in the glueing area of the revenue seal.

Thereby, a better surface for glueing is created, to which
25 the revenue seal immediately adheres, in such a manner that the seal is destroyed when the pack is torn open.

The invention is explained in more detail below with reference to a diagram:

The single figure shows an octagonal cigarette pack with a back 1, a top 2, with sides 3 and with chamfered edges 4, in which the top 2 is connected to the back 1 along a fold line 5. In the region of the chamfered edges 4, the sides 3 and the front which cannot be seen in the diagram, the fold line 5 turns into a opening edge or dividing line 5', which breaks the sides 3, the front and the chamfered edges 4 and in doing so allows the top 2 to be lifted up so as to open the pack in order to take out cigarettes.

For certain cigarettes, in particular for so-called luxury brands, the walls of the pack have a particular coating which, as a rule, is so smooth that a revenue seal, represented in the diagram only indicatively 7, adheres poorly to it. In order to overcome this difficulty, according to the invention, in areas 6 where the revenue seal is to be glued, the coating is destroyed, either mechanically or with a laser so that the surface of the pack in the areas 6 is not as smooth as the rest of the coating. The destruction takes place by laser in the on-line process using equipment known per se which is readily available to the person skilled in the art.

It is clear from the attached diagram that one or more areas

6 have been expediently treated with a laser beam on the back 1 of the pack, these areas 6 covering the fold line 5 and thus, ensuring that a revenue seal stuck on in the destroyed areas 6 is damaged.

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It is also clear from the diagram that the areas 6 which are treated by laser are not only positioned on the backs of the pack, but also on one side 3, so that the smooth coating of the pack is also destroyed there. The exposed, destroyed 10 areas 6 on the side 3 represent a continuation of the destroyed areas 6 on the back, in that a revenue seal 7 which is glued onto the back over the destroyed areas 6 and is folded over the chamfered edge 4 onto the side 3, covers the destroyed areas present there 6 and adheres well to them.

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In this way, it is guaranteed that, when the top 2 is raised, the revenue seal in the region of the dividing line 5' is torn.

20 In another version of the invention, the specially treated areas 6 are provided only on one side 3 or only on the back 1 of the pack.

Patent claims

1. Process for the affixing of a revenue seal (7) to a cigarette pack provided with a smooth coating,
5 characterized in that the coating of the pack is destroyed by a laser beam in areas (6) where the revenue seal (7) is to be applied.
2. Process according to claim 1, characterized in that the
10 destruction of the coating of the pack occurs in areas (6) of the back, or in areas (6) of the side, or in both areas.

