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Product package with low-profile paper loop hang tab

ABSTRACT

This disclosure describes a hang tab made of paper webbing or fabric for use in product packaging. The paper loop hang tab can be manufactured entirely from dye or colorant free paper. The hang tab can be configured in a compressible low-profile product package which can lower shipping costs. The paper loop hang tab also offers high recyclability when compared to a polycarbonate hang tab and provides an appealing aesthetic on a shelf.

KEYWORDS

- Hang tab
- Paper webbing
- Paper loop
- Product package
- Consumer electronics
- Recyclability
- Single-use plastics

BACKGROUND

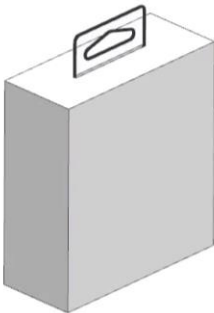


Fig. 1

Many products, including consumer electronics products such as smartphone cases, small consumer devices such as streaming sticks, adapters, etc. ship in packaging that includes a hang tab that is used to hang the product on a shelf. Fig. 1 illustrates an example product package with a plastic hang tab. Hang tabs are often made of single-use plastic.

Millions of product packages that include hang tabs are manufactured every year. The majority of hang tabs for these packages are currently made of clear polycarbonate materials. Hang tabs are manufactured with rigid die cut techniques which can result in excess headspace (space that the tab takes up above the product box itself) which adds to the logistics cost. Other types of hang tabs that are manufactured with paper die cut techniques are less reliable in situations with repeated customer interaction such as pulling on the product while suspended on a hanger, removing and returning a product from a hanger, etc.

DESCRIPTION

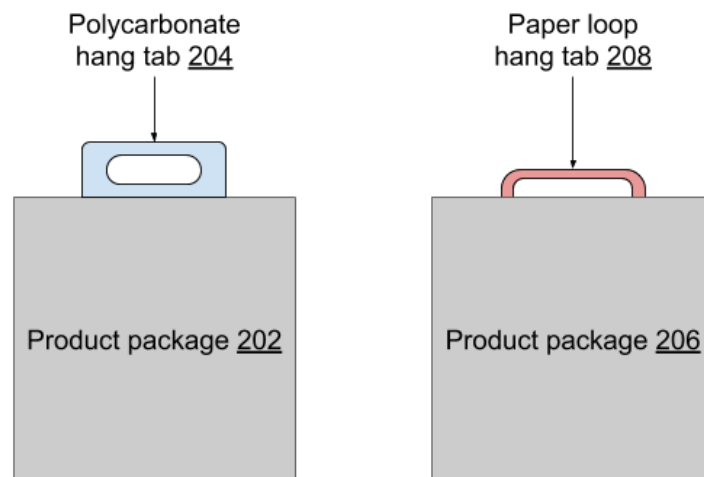


Fig. 2: Low-profile paper loop hang tab

Fig. 2 illustrates a conventional product package (202) with a polycarbonate hang tab (204) and a product package (206) with a paper loop hang tab (208) of this disclosure. As seen in figure, the low-profile paper loop hang tab has a height of less than a third of a conventional polycarbonate hang tab and allows a compressible low-profile product package. Further, the material of the hang tab is plastic free. Product package (206) with the paper loop hang tab has a lower shipping cost compared to product package (202). In an example package, the rigid polycarbonate hang tab can add a height of 22 millimeters to the entire product package while

the flexible paper loop hang tab as described herein adds 7 millimeters. Further, the paper loop hang tab can be compressed when the product does not need to be hanged.

The paper loop hang tab is made entirely of paper. Rolls of paper are twisted to form paper yarns, which then are braided to obtain strips of paper webbing. The paper yarn can be braided to form paper webbing of various widths. Dyes or colorants are not used in manufacturing paper loop hang tabs. For example, a paper loop hang tab can be fabricated with a thickness of 0.85 millimeters and a width of 1, 1.5, or 2 centimeters.

Cutouts are made on the packaging material to feed the paper webbing through to construct a hang tab. A section of the packaging material is removed to stabilize the positioning of the paper loop hang tab. The paper webbing is bonded together to form a loop with techniques such as hotmelt, double sided tape, etc. to form the hang tab. The bond is then covered by a thin material to cover the paper webbing on the inside of the package.

The paper loop hang tab as described in provides higher reliability for repeated interactions with consumers when compared to a solid bleached sulphate (SBS) die cut hang tab and polycarbonate hang tabs. The paper loop hang tab can also provide higher tensile strength when compared to other types of hang tabs.

The paper loop hang tab offers high recyclability when compared to a polycarbonate hang tab while keeping the total cost of assembly, logistics, and material cost equivalent to that of current manufacturing costs. The paper loop hang tab is compatible with single hangers and double hangers that are commonly used for displaying retail products. The paper loop hang tab is aesthetically pleasing when the product package is not displayed on a hanger.

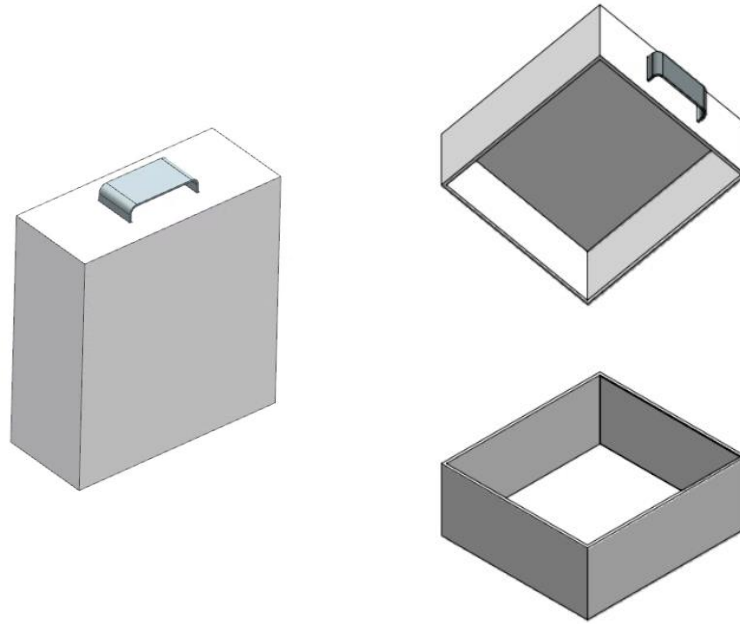


Fig. 3: Product package with paper loop hang tab

Fig. 3 illustrates an example product package with a paper loop hang tab, as described herein.

CONCLUSION

This disclosure describes a hang tab made of paper webbing or fabric for use in product packaging. The paper loop hang tab can be manufactured entirely from dye or colorant free paper. The hang tab can be configured in a compressible low-profile product package which can lower shipping costs. The paper loop hang tab also offers high recyclability when compared to a polycarbonate hang tab and provides an appealing aesthetic on a shelf.

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1. Glued-In Handle: 0.95, available online at <https://www.plastic-handles.com/paper-glued-in-handle.php>, accessed 20 June 2019.