CHILD-RESISTANT PACKAGE

The present disclosure relates to a child-resistant package, and more particularly to a compact-style child-resistant package that provides tamper indication.

BACKGROUND AND SUMMARY OF THE DISCLOSURE

A general object of the present disclosure is to provide an economical compact-style child-resistant package for containing tablets or the like.

The present disclosure embodies a number of aspects that can be implemented separately from or in combination with each other.

A child-resistant package in accordance with one aspect of the present disclosure includes a first element having a base wall with a rectangular periphery, a continuous peripheral wall extending around such periphery, at least a pair of locking projections internally disposed on opposed sections of the peripheral wall, and a cylindrical wall extending from the base wall within the peripheral wall and having at least one first thread segment. A second element has a base wall with a rectangular periphery and a continuous peripheral wall extending around the periphery, a pair of locking tabs centrally extending from opposed sections of the peripheral wall, and a cylindrical wall extending from the base wall within the peripheral wall and having at least one second thread segment. The second element is threadable onto the first element by means of the cylindrical walls and the first and second thread segments to bring the peripheral walls into aligned abutment and the locking tabs into engagement with the locking projections to resist unthreading of the elements. The peripheral wall of the second element is inwardly flexible and resilient adjacent to the locking tabs to permit manual movement of the locking tabs inward from the locking projections so that the elements can be unthreaded from each other. A label preferably extends at least from the base wall of the second element around abutting sections of the peripheral walls onto the base wall of the first element such that the label must be severed to permit unthreading of the elements to provide tamper indication for the package.

BRIEF DESCRIPTION OF THE DRAWINGS

The disclosure, together with additional objects, features, advantages and aspects thereof, will best be understood from the following description, the appended claims and the accompanying drawings, in which:

FIG. **1** is a perspective view of a package in accordance with an exemplary embodiment of the present disclosure;

FIG. **2** is a perspective view of the package of FIG. **1** without the label;

FIG. **3** is a fragmentary sectional view taken substantially along the line **3-3** in FIG. **2**;

FIG. **4** is a perspective view of the package of FIG. **2** with the package elements separated from each other;

FIG. **5** is a top plan view of the lower package element in the package of FIGS. **1-4**;

FIG. **6** is a sectional view taken substantially along the line **6-6** in FIG. **5**;

FIG. **7** is a fragmentary sectional view taken substantially along the line **7-7** in FIG. **6**;

FIG. **8** is an enlarged view of the portion of FIG. **5** within the area **8**;

FIG. **9** is a bottom plan view of the upper package element in the package of FIGS. **1-4**;

FIG. **10** is a sectional view taken substantially along the line **10-10** in FIG. **9**;

FIG. **11** is an enlarged view of the portion of FIG. **10** within the area **11**;

FIG. **12** is an enlargement of the portion of FIG. **9** within the area **12**; and

FIG. **13** is a fragmentary sectional view taken substantially along the line **13-13** in FIG. **12**.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

The drawings illustrate a child-resistant compact-style package **10** in accordance with an exemplary embodiment of the disclosure. Package **10** includes a first element **12** hereinafter referred to as a "base" and a second element **14** hereinafter referred to as a "lid" threadably received on the base. The terms "base" and "lid" are used for purposes of description only and do not imply any limitation as to which element is disposed above the other.

Base **12** (FIGS. **1-8**) includes a base wall **16**, which preferably is substantially flat and has a rectangular periphery that preferably is square. An upstanding continuous peripheral wall **18** extends entirely around the rectangular (preferably square) periphery of base wall **16** and has an upper edge **20** disposed in a plane that preferably is parallel to substantially flat base wall **16**. A cylindrical wall **22** extends from base wall **16** within peripheral wall **18**, preferably being substantially centrally disposed within peripheral wall **18**. Cylindrical wall **22** has at least one external thread segment **24**. In the illustrated exemplary embodiment of the disclosure, there are four external thread segments **24** with thread starts at 90° spacing from each other. Cylindrical wall **22** has an edge **26** that preferably lies in a plane parallel to the plane of peripheral wall edge **20**. A locking projection **28** is internally disposed at least on opposed linear sections of peripheral wall **18**. In the exemplary embodiment of the disclosure that includes four thread segments **24**, there preferably is a locking projection **28** internally disposed on each linear section of peripheral wall **18**. Each locking projection **28** includes a counterclockwise-facing cam surface **30** (in the orientation of FIG. **5**) and a clockwise-facing abutment surface **32**. The opposed pairs of locking projections **28** are generally centered on the peripheral wall sections but are slightly offset from each other, as best seen in FIG. **5**, for purposes to be described. Base **12** preferably is of one-piece molded plastic construction such as polypropylene.

Lid **14** (FIGS. **1-4** and **9-13**) preferably also is of one-piece molded plastic construction such as polypropylene and includes a base wall **34** that preferably is substantially flat. Base wall **34** has a rectangular periphery, preferably square, that is identical to the rectangular (preferably square) periphery of base **12**. A continuous peripheral wall **36** extends entirely around the periphery of lid base wall **34** and has a free edge **38** that lies in a plane parallel to the plane of substantially flat base wall **34**. A cylindrical wall **40** extends from base wall **34** within peripheral wall **36**, preferably centrally within peripheral wall **36**. Cylindrical wall **40** has at least one internal thread segment **42** that corresponds in number and geometry with the at least one external thread segment **24** on base **12**. In the illustrated exemplary embodiment of the disclosure, there are four internal thread segments **42** with thread starts at 90° spacing around the inside of cylindrical wall **40**. A pair of internal locking tabs **44** centrally extend from diametrically opposed linear sections of peripheral wall **36**. External ribs or grooves **46** may be provided on peripheral wall **36** to identify the locations of tabs **44**. Internal grooves