

Designation: D 3475 – 05

Standard Classification of Child-Resistant Packages¹

This standard is issued under the fixed designation D 3475; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This classification covers various types of child-resistant packages.

1.2 The examples for each type of child-resistant packaging are not intended to be all-inclusive, but are included only as an aid in the understanding and comprehension of each type of classification.

1.3 Listings are not to be considered endorsements or approval of the package by ASTM.

2. Terminology

2.1 Definitions of Terms Specific to This Standard:

2.1.1 child-resistant package—as defined by the Poison Prevention Packaging Act, packaging that is designed or constructed to be significantly difficult for children under five years of age to open or obtain a toxic or harmful amount of the substance contained therein within a reasonable time, and not difficult for normal adults to use properly, but does not mean packaging which all such children cannot open or obtain a toxic or harmful amount within a reasonable time.²

2.1.2 *unit dose package*—an immediate product container/ package designed and labeled in such a manner that each individual product package is intended to be opened or used one time in a generally non-reclosable or non-resealable manner, separately from the other individual product units in the package, or the entire contents of a single unit package intended for use in one application.

2.1.2.1 *Discussion*—Normally used for pharmaceutical, human healthcare, and nutritional products in dry solid, topical, transdermal, or liquid form. A unit of sale package may contain one or more individual unit dose packages, that is, individually wrapped transdermal patches, pre-filled syringes and syringe cartridges, blister cards with multiple tablets or capsules, etc. Unit dose packages may or may not be child-resistant in accordance with the regulatory requirements of the package contents. 2.1.3 *unit use/single use package*—an immediate product container/package, which may include label directions for use, designed in such a manner that each individual product package is intended to be opened or used one time separately from the other individual product units in the package, or the entire contents of a single unit package intended for use in one application.

2.1.3.1 *Discussion*—These packages are generally nonreclosable or non-reusable. A unit of sale package may consist of one or more non-reusable individual packages. Generally used for household, automotive, chemical, pesticide, veterinary, garden and other products not intended for human ingestion. Package styles may include some aerosol, that is, foggers, soluble film, canisters, pouches, etc., filled with liquids, drys, powders and other product forms. Packages may or may not be child-resistant in accordance with the regulatory requirements of the package contents.

3. Significance and Use

3.1 This classification scheme defines the type of motions, skills, or tools required for a particular type of child-resistant package and provides examples of current packaging within that type.

3.2 Reference to a particular package in this classification is not intended in any manner to denote endorsement or approval of the package by ASTM.

3.3 Packages have been included as examples based on manufacturers' claims of child-resistance. Child-resistant package functionality for any specific product type must be determined by the packager/manufacturer following the guide-lines of the PPPA of 1970 and the most current version of the CFR Title 16 Part 1700 and Title 40 Part 157.² The listing of a package in this classification is not an indication of whether or not it has been successfully tested in accordance with the aforementioned guidelines.

3.4 Additions or deletions to the examples should be reported to Committee D10 on Packaging, for incorporation into this classification during the next revision.

4. Basis of Classification

4.1 The basis for classification for child-resistant closure, and the classifications themselves, appear in Table 1.

Copyright © ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States.

¹ This classification is under the jurisdiction of ASTM Committee D10 on Packaging and is the direct responsibility of Subcommittee D10.31 on Child-Resistant Packaging and Closure Systems.

Current edition approved April 1, 2005. Published April 2005. Originally approved in 1976. Last previous edition approved in 2003 as D 3475 – 03a.

² Code of Federal Regulations, Title 16, Part 1700 and Title 40, Part 157. A copy may be obtained through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

∰ D 3475 – 05

TABLE 1 Classification of Child-Resistant Packages

| | Description | Example |
|--------|---|--|
| | TYPE I RECLOSABLE PACKAGING- | -CONTINUOUS THREAD CLOSURE |
| A | Random push down while turning; no orientation of the push down force necessary | Kerr CR-I, II, III, XIV and CRTE; Owens-Illinois Clic-Loc I, II, and III, Argus-Loc and II and Chem-Loc; Alcoa Tot-Gard III; Van Blarcom metal-on-metal, Saf- Cap I, II, III, and IIIA; Ferdinand Gutman; Poly Seal Corp.; Reliable Products; Rexam F.G. (Final Generation), Carow-Turnloc; Comar-Secure Cap; Reike- FS652; CCL Container Corporaton (tube) & RPC Containers Ltd. (closure) Tube Secure; Owens-Illinois Inc. Ultra-Loc; Van Blarcom Closures Inc. Dropper Closure, Saf-Cap Convertible, 1-1/8 Beta Closure |
| В | Localized squeeze force while turning; the force must be applied to a designated location on the closure skirt | Rexam Squeeze-Lok, Snap-Lok, Econo-Lok, Tip Lok, DOT, Dougherty Brothers; Fastex; Owens-Illinois Squeeze and Turn, Tab-Loc; Berry Plastics- Squeeze & turn jigger-Lite-touch; Weatherchem-Top Squeeze; Kerr-Tab II Squeeze & Turn; Rieke FS633, HZ43CR, HZ24CR; US Can-Screw top; Owens-Illinois Inc. Drain Back System; Rexam Closures & Containers Jigger, Snap-Lok II, Squeeze Lok Low Profile; Rieke Corporation Stolz HZ32CR |
| С | Random squeeze while turning; no orientation of the squeeze force is necessary | Owens-Illinois |
| D | Holding a fitment while turning; two-handed operation is normally required | Thomas Closure Moldcraft; M & M Industries, IncLife Latch; Berry Plastics, Lite-Touch |
| E F | Key or device required to open Random lift while turning; no orientation of the lift force is necessary | Research and Devices; Ben King Associates Baby Safe; Tredegar |
| G H | Localized lift of cap skirt or tab on closure while turning Localized push down while turning; force must be applied to a designated place on the top of the closure | Charles A. Breskin; Alcoa Tot Gard II Mack Wayne Plastics; Anchor Hocking Mold Craft; Owens-Illinois |
| Ļ | Set combination before turning | None at this time |
| J K | Pull tab then turn Align arrows, then push tab down, then turn | Intermova Gate Lok, Lefty Lok Owens-Illinois Cognitive Closure |
| L | Turn closure until stops, then lift and continue trying to open Localized push in while turning, force must be applied to designated place on | Berry Plastics Corppail; Berry Plastics Corporation ZH05SQ U S Can Company-pail |
| N | closure Localized push back lever while turning, force must be applied to designated | None at this time |
| 0 | place on closure Turn the top cap until stops, then push down and turn | M&M Industries, Inc |
| - | (https://stop/ | GING—LUG FINISH CLOSURE |
| | | |
| A | Random push down while turning | Push-Palm; Design Consultant Plastics; Iventive Packaging Corp., Clarke Container Push & Turn; Cebal Americas (tube) & Rexam Closure & Conatiners (closure) TubeLok; Owens-Illinois Inc. Purse Pak |
| В | Hold fitment down while turning closure ASTM L | Rexam Snap-Lok, Econo-Lok, Tip Lok; Owen-Illinois-1-Clik |
| C D | Unlock outer ring to release lugs Depress fitment and slide to one side talog/standards/sist/ad5ba6 | Thornton Plastics Plastic box with sliding lug lock (manufacturer unknown); Creative Packaging Lok-Pak |
| Е | Holding of fitment while turning; two-handed operation is normally required and no orientation of holding force is specified | None at this time |
| | TYPE III RECLOSABLE PAG | KAGING—SNAP CLOSURE |
| A | (1) Align two points then push up on tab or lip | Bristol-Myers; Calmar Snap Safe; Stull; Plastic Research; Henlopen Snap Cap; |
| ~ | | Lermer CR Snap; Owens-Illinois Snaploc; Central States Can Co.; Boyle Midway; Clarke Container Snap Lok; VH Technologies-virtual hinge |
| в | (2) Rotate then lift Localized downward pressure to open | Continental Carlisle Co. Unikon; Magenta CorpPillpack Polymold; Basic Products Poly Mold |
| С | Downward pressure on top with simultaneous upward pull on edges | Versatile Ind. Products |
| D | (1) Press to release and then lift hinged tab (dispensing cap)(2) Press to release, follow by lifting force on tab (removable cap) | Magenta Corp.; Lumlite PopLok; Polytop ToggLoc Dispensing Closure Wheaton Industries Ryles Closure; Owens-Illinois hood type, Magenta Corp. Pop-Lok Plug |
| | (3) Push up to release | Stull Easy Flip 2008 captive hinge |
| | (4) Push in or up, or both, to release(5) Pull to release and lift hinged lid (dispensing cap) | Shellvick Industries, Inc. Stull Technologies: StullSURE |
| Е | (1) Squeeze and lift two specific points simultaneously (2) Squeeze and lift one specific point simultaneously | Pennwalt-Lye; J. L. Clark |
| F | (3) Squeeze two points simultaneously to open Squeeze two specific points simultaneously to unlock sides, then squeeze specific point on third side while lifting lid | MAC Closures Inc.; FTCR 19000, FTCR 19100, FTCR 19500 Shaw-Clayton Press N Pop; Norman J. Larus |
| G | specific point on third side while lifting lid Requires key device or fingernail or coin or other tool to open | Skilcraft; Continental Plastics Med Guard; Plastic Container Corp. Prex Con; Polytop Corp. LokTop; Myco Corp. Surelock, Vicap; Rexam Snap Cap; Pin Lock, Inc. Pin Lock; Kerr Glass Pry Off; Genpak Corp. Pry Off; Cin-Made Corporation (container) CMI (closure) Tec Loc; Continental Fibre Drum Leverpak; Berry Plastics; Plastican, Inc. Lever/Toggle Band on Pail; Container Products Inc. Lever Lok; Cin Made Corp. Friction Fit Plug; Silgan Plastics Corporation 28MM-410 CR Dispensing Nozzle Closure |
| | Lift locking tab then push up | Internova Corp. Flap Lok |