



Designation: D3475 – 20

Standard Classification of Child-Resistant Packages¹

This standard is issued under the fixed designation D3475; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

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.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

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.

¹ This classification is under the jurisdiction of ASTM Committee F02 on Primary Barrier Packaging and is the direct responsibility of Subcommittee F02.50 on Package Design and Development.

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² Code of Federal Regulations, Title 16, Part 1700 and Title 40, Part 157. Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.

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, and so forth. 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 non-reclosable 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, and so forth, filled with liquids, dries, 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 guidelines 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 Subcommittee F02.50 on Package Design and Development, for incorporation into this classification during the next revision.

3.5 Additions require F02.50 Task Group review of CFR Title 16 Part 1700 full protocol testing reports. Reports should cover procedures and all CFR Title 16 Part 1700 required reporting elements. Additional information may be requested.

3.6 Use of a package cited in this classification allows for the statement “CONFORMS TO ASTM D3475,” and does not allow for the use of the ASTM logo or result in an ASTM certification mark.

4. Basis of Classification

4.1 The functional basis for classification and the classifications appear in **Table 1**.

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, IV and CRTE; Berry Global, Inc. Clic-Loc and Clic-Loc III, Argus-Loc; Centor Inc. Ultra-Loc, Ultra-Loc “C”; Alcoa Tot-Gard III; Van Blarcom metal-on-metal, Saf-Cap I, II, III, and IIIA; Ferdinand Gutman; Poly Seal Corp.; Reliable Products; Berry Global, Inc. F.G. (Final Generation), Carow-Turnloc; Comar-Secure Cap; Reike-FS652; CCL Container Corporation (tube) & RPC Containers Ltd. (closure) Tube Secure; Van Blarcom Closures Inc. Dropper Closure, Saf-Cap Convertible, 1-1/8 Beta Closure; Bericap North America, Bericap SK28/26 CR Slitband; Sanner of America, Child Resistant Screw Cap; Mold-rite Plastics CRC Pictorial Screw Cap, PDT Push Down & Turn Screw Cap; Drug Plastics & Glass Co., Inc. SecuRx; Gerresheimer Boleslawiec S.A. NG 38C; Berry Global, Inc. CR-I/TEIII; Berry Global, Inc. CR-III; Berry Global, Inc. CR3A/LR; Berry Global, Inc. CR5; Berry Global, Inc. CR4; Berry Global, Inc. MAC Duma
B	Localized squeeze force while turning; the force must be applied to a designated location on the closure skirt	Econo-Lok, DOT, Dougherty Brothers; Fastex; Berry Global, Inc. Squeeze and Turn; Berry Global, Inc.-Squeeze & turn jigger-Lite-touch; Weatherchem-Top Squeeze; Kerr-Tab II Squeeze & Turn; Rieke FS633, HZ43CR, HZ24CR; US Can-Screw top; Squeeze Lok Low Profile, FG; Rieke Corporation Stolz HZ32CR; Val-Pak Products, 63-400 Squeeze Cap; Berry Global, Inc. DOT Series DCR; Berry Global, Inc. DOT Series DCR-TI; Berry Global, Inc. Drain Back System; Berry Global, Inc. Jigger; Berry Global, Inc. Quarter-Turn; Berry Global, Inc. Snap-Lok II; Berry Global, Inc. Squeeze and Turn; Berry Global, Inc. SQL; Berry Global, Inc. Tab II; Pollen, Double Squeeze
C	Random squeeze while turning; no orientation of the squeeze force is necessary	
D	Holding a fitment while turning; two-handed operation is normally required	Thomas Closure Moldcraft; M & M Industries, Inc.-Life Latch; Berry Global, Inc. Lite-Touch
E	Key or device required to open	Research and Devices; Ben King Associates Baby Safe; Tredegar
F	Random lift while turning; no orientation of the lift force is necessary	
G	Localized lift of cap skirt or tab on closure while turning	Charles A. Breskin; Alcoa Tot Gard II
H	Localized push down while turning; force must be applied to a designated place on the top of the closure	Mack Wayne Plastics; Anchor Hocking Mold Craft; Berry Global, Inc.
I	Set combination before turning	None at this time
J	Pull tab then turn	Intermova Gate Lok, Lefty Lok
K	Align arrows, then push tab down, then turn	Berry Global, Inc.-pail; Berry Global, Inc. ZH05SQ; Berry Global, Inc. T05SCR(B) & L05SCR; Berry Global, Inc. ZH05SQ; Berry Global, Inc. ZH50SQ
L	Turn closure until stops, then lift and continue trying to open	Bway Corporation Screw Top
M	Localized push in while turning, force must be applied to designated place on closure	
N	Localized push back lever while turning, force must be applied to designated place on closure	None at this time
O	Turn the top cap until stops, then push down and turn	M & M Industries, Inc
TYPE II RECLOSABLE PACKAGING—LUG FINISH CLOSURE		
A	Random push down while turning	Eyelet Specialty; Pac-Tec Inc.-Palm-N-Turn; Centor Inc. Screw Loc; Kerr CR-V; Berry Global, Inc. Friendly and Safe; Thornton Plastics Tot-Lok; Child Related Research, Inc. Push-Palm; Design Consultant Plastics; Inventive Packaging Corp., Clarke Container Push & Turn; Cebal Americas (tube) & Berry Global, Inc. (closure) TubeLok; Berry Global, Inc. Purse Pak; Berry Global, Inc., Spring-Loc; Berry Global, Inc. PursePak; Berry Global, Inc. Tube-Loc
B	Hold fitment down while turning closure	Berry Global, Inc. Snap-Lok, Econo-Lok; Centor Inc. 1-Click; CannaContainers, CR Vial
C	Unlock outer ring to release lugs	Thornton Plastics
D	Depress fitment and slide to one side	Plastic box with sliding lug lock (manufacturer unknown); Creative Packaging Lok-Pak
E	Holding of fitment while turning; two-handed operation is normally required and no orientation of holding force is specified	None at this time

TABLE 1 Continued

Description	Example
TYPE III RECLOSABLE PACKAGING—SNAP CLOSURE	
<p>A (1) Align two points then push up on tab or lip</p> <p>(2) Rotate then lift</p> <p>B Localized downward pressure to open</p> <p>C Downward pressure on top with simultaneous upward pull on edges</p> <p>D (1) Press to release and then lift hinged tab (dispensing cap)</p> <p>(2) Press to release, follow by lifting force on tab (removable cap)</p> <p>(3) Push up to release</p> <p>(4) Push in or up, or both, to release</p> <p>(5) Pull to release and lift hinged lid (dispensing cap)</p> <p>(6) Push in and flip up</p> <p>(7) Push in and up then flip up</p> <p>E (1) Squeeze and lift two specific points simultaneously</p> <p>(2) Squeeze and lift one specific point simultaneously</p> <p>(3) Squeeze two points simultaneously to open</p>	<p>Bristol-Myers; Calmar Snap Safe; Stull; Plastic Research; Henlopen Snap Cap; Lermer CR Snap; Central States Can Co.; Boyle Midway; Clarke Container Snap Lok; VH Technologies-virtual hinge Litaloc LLC, Litaloc; CannaContainers, CR J-Tube</p> <p>Continental Carlisle Co. Unikon; Magenta Corp.-Pillpack</p> <p>Polymold; Basic Products Poly Mold</p> <p>Versatile Ind. Products</p> <p>Magenta Corp.; Lumlite PopLok; MeadWestvaco (MWV): Slatersville, LLC; PS 194 Toggloc, PS 211 Toggloc, PS 355 Toggloc.</p> <p>Wheaton Industries Ryles Closure; Magenta Corp. Pop-Lok Plug</p> <p>Stull Easy Flip 2008 captive hinge; Stull Technologies, Pry Open Closure</p> <p>Shellvick Industries, Inc.</p> <p>Stull Technologies: StullSURE</p> <p>CSP Technologies, ACTIV-VIAL; Ropak Packaging EZ STOR® (UC2G)</p> <p>CSP Technologies, Mini Cooper Vial</p> <p>Penwalt-Lye; J. L. Clark; Berry Global, Inc. Flip-Lok; Berry Global, Inc. Series CR FlipLok</p> <p>Berry Global, Inc.; FTCR 19000, FTCR 19100, FTCR 19500; Philips Rx Packaging LLC, Rx Squeeze Vial; LA Packaging, SqueezeTops Pharmacy Vial; Stephen Gould, The Safelylock</p> <p>Shaw-Clayton Press N Pop; Norman J. Larus</p>
<p>F Squeeze two specific points simultaneously to unlock sides, then squeeze specific point on third side while lifting lid</p> <p>G Requires key device or fingernail or coin or other tool to open</p>	<p>Skilcraft; Continental Plastics Med Guard; Plastic Container Corp. Prex Con; Silgan Corp. LokTop; Myco Corp. Surelock, Vicap; Berry Global, Inc. Snap Cap;</p> <p>Pin Lock, Inc. Pin Lock; Kerr Glass Pry Off; Genpak Corp. Pry Off;</p> <p>Cin-Made Corporation (container) CMI (closure) Tec Loc; Continental Fibre Drum Leverpak; Berry Global, Inc.; Plastican, Inc. Lever/Toggle Band on Pail;</p> <p>Container Products Inc. Lever Lok; Cin Made Corp. Friction Fit Plug; Silgan Plastics Corporation 28MM-410 CR Dispensing Nozzle Closure; Berry Global, Inc. T02CR, L02S, T16CR(B) and L16CR, MeadWestvaco (MWV): Slatersville, LLC: PS 186 Loctop.</p>
<p>H Lift locking tab then push up</p> <p>I Random squeeze while turning and pulling up</p> <p>J Align two points, push down outer ring, then push up tab or lip</p> <p>K Rotate cap to a first index, then counterrotate cap to a second index, then lift cap</p>	<p>Internova Corp. Flap Lok</p> <p>Stull Snap On/Twist Off</p> <p>Robert Linkletter Associates</p> <p>Yellowstone Environmental Science, Inc. WiseCap</p>
TYPE IV UNIT NON-RECLOSABLE PACKAGING—FLEXIBLE (STRIP/POUCH)	
<p>A Internal (hidden) tear notch</p> <p>B Oriented tear</p> <p>C Requires tool</p>	<p>Sharp; Reynolds Aluminum (Safety Pak 101); PCM Corp.; Cardinal Health; West Pharma-Services; Reed-Lane, Inc.</p> <p>Schering Corp.; Sharp; American National Can Co.; Reed-Lane, Inc.</p> <p>Hargo Flexible Packaging (Pos-I-Pak); Sharp; Hach Chemical Co.; American National Can Co.; Cardinal Health; Paco; Reed-Lane, Inc.; Pactech Packaging LLC; Cannaline</p>
TYPE V UNIT NON-RECLOSABLE PACKAGING—RIGID	
<p>A Requires tool</p> <p>B Requires localized force</p> <p>C Peelable backing or coating</p> <p>Package is not opened or activated to expose contents: (1) One piece plastic unit with multiple holes to allow use of product without human contact; and (2) Two piece plastic unit with multiple holes to allow use of product without human contact</p> <p>D Push down while turning – closure is not removed; contents are exposed through hole in closure tip.</p>	<p>All metal can</p> <p>None at this time</p> <p>Standard packaging</p> <p>Neopac Twist 'n' Use (on tube)</p>
TYPE VI UNIT RECLOSABLE PACKAGE	
<p>A Metered device</p>	<p>None at this time</p>
TYPE VII AEROSOL PACKAGES	
<p>A Localized squeeze while lifting removes overcap (actuates normally)</p> <p>B Hold fitment still while turning (actuates normally)</p> <p>C Hold fitment still while lifting (actuates normally)</p> <p>D Requires use of a key or device to open (actuates normally)</p> <p>E Directional overcap-actuator must be oriented, then pressed</p> <p>F Directional overcap-actuator requires sequential simultaneous pushing of locking device and actuator</p> <p>G Directional overcap-actuator which requires a finger longer than that of a child</p> <p>H Press to release, lift hinged tab at center of the closure followed by an upward force on the tab to remove overcap (actuates normally)</p> <p>I Directional overcap-actuator that requires the lifting of a hinged tab to reveal the actuator</p> <p>J Random push down while turning; no orientation of the downward force is necessary</p>	<p>Knight Engineering; Berry Global, Inc.; Cobra Plastics Inc. 65 mm NICR; Berry Global, Inc. 202SP & 211SP; Berry Global, Inc. 211NSR; Berry Global, Inc. 211SRC</p> <p>Thomas Closure</p> <p>None at this time</p> <p>Newman Green, Shellvick Answer Cup 200 TR/CR</p> <p>Union Carbide; Seaquist; Berry Global, Inc. CR Aerosol</p> <p>Shell Chemical</p> <p>None at this time</p> <p>None at this time</p> <p>ITL (Hayes-Albion)</p>