



Designation: D2050 – 23

Standard Terminology Relating to Fastener Subassemblies Used in the Manufacture of Textiles¹

This standard is issued under the fixed designation D2050; 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 standard identifies terminology related to subassemblies which are categorized as any component that is used in the construction or assembly of a textile product. Subassemblies can be in the form of components used as closures (for example, slide fasteners, buttons, snap fasteners, hook and loop (touch) fasteners) or methods used to join textile sections (for example, stitches and seams).

1.2 Terms relating to Buttons are found in Section 3.

1.3 Terms relating to Hook and Loop (Touch) fasteners are in Section 4.

1.4 Terms relating to Snap Fasteners are found in Section 5.

1.5 Terms relating to Slide Fasteners are found in Section 6.

1.6 For other terms related to textiles, refer to Terminology D123.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.8 *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. Referenced Documents

2.1 *ASTM Standards:*²

D123 Terminology Relating to Textiles

¹ This terminology is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.54 on Subassemblies. These definitions were developed in cooperation with the American Fastener and Closure Assn. Inc.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

D2060 Test Methods for Measuring Zipper Dimensions

D2061 Test Methods for Strength Tests for Zippers

D3657 Specification for Zipper Dimensions

D4846 Test Method for Resistance to Unsnapping of Snap Fasteners

D5169 Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners

D5171 Test Method for Impact Resistance of Plastic Sew-Through Buttons

D7142 Test Method for Holding Strength of Prong-Ring Attached Snap Fasteners

3. Terminology

RELATING TO BUTTONS

3.1 Terminology relating to buttons covers a variety of terms having special meanings used in the button industry. These apply only to sew-through flange and shank buttons.

3.1.1 The principal types of button defined in this terminology are illustrated in Figs. 1-8. These figures are descriptive only and are not intended to be restrictive as to design.

assembled button, *n*—a decorative disc made from a combinations of similar or dissimilar materials, such as plastic and metal or metal and metal, which have been joined together by such processes as gluing, swedging or metal stamping.

bridge, *n*—the area of a button between the holes partially covered by the sewing threads with varying dimensions are determined by design and end use.

button, *n*—a knot, disc, or similar designed fastener which, when forced through a narrow opening or buttonhole, is able to join one section of a garment or other flexible substrate to another section. **D5171**

DISCUSSION—Although the primary purpose of buttons is to serve as fasteners, buttons can also be used as decoration. **D5171**

centrifugal cast button, *n*—see **rotation cast button**.

compression molding, *n*—(as related to button manufacturing) a process that forms a button using material placed in a confined cavity, and by application of pressure and heat.

DISCUSSION—this type of button is produced by compression molding any of the following thermoset molding compounds: (1) urea-formaldehyde; (2) melamine formaldehyde; (3) styrene-modified polyester; or any combination thereof.

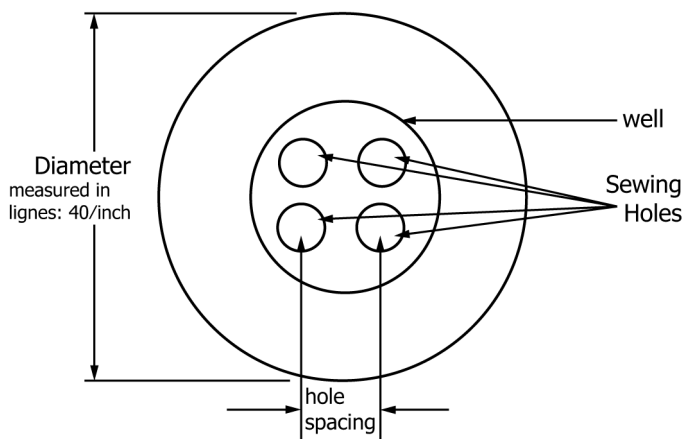


FIG. 1 Sew-Through Flange Button

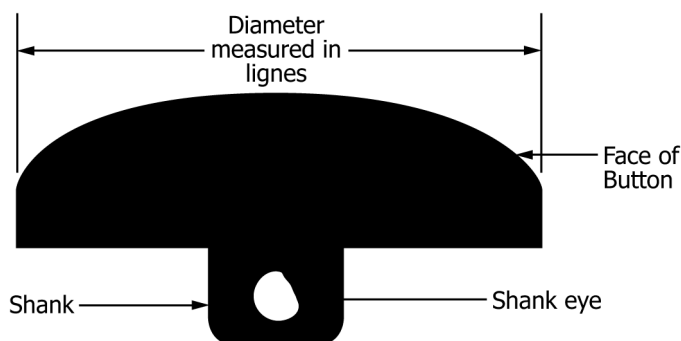


FIG. 2 Sew-Through Shank



FIG. 3 Pin Shank



FIG. 4 "U" Shank



FIG. 5 Stab or Screw Shank Staple Buttons

DISCUSSION—Specific—When using styrene modified polyester resin, which has pearlescent pigments in its formulation and which are oriented in the molding process, the resultant button or button blank can resemble a natural pearl shell button.

dry cleanable button, *n*—a disc that can be cleaned using a solvent without damage, such as dissolving or loss of finish.

electroplated button, *n*—plastic discs which have been made conductive by chemical treatment followed by the electroplating of metallic coatings.



FIG. 6 Bell Shank Staple Buttons

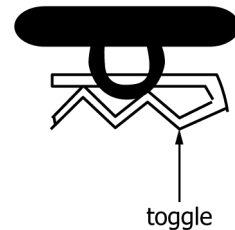


FIG. 7 Toggle Staple Attached Buttons

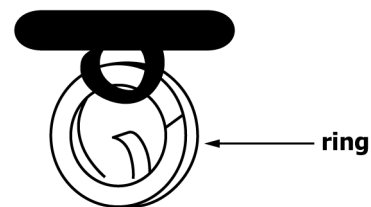


FIG. 8 Ring Staple Attached Buttons

DISCUSSION—Buttons made of plastics, such as polyester, acetate, ABS, melamine, and urea formaldehyde are the materials usually electroplated.

fabricate, *v*—(as related to button manufacturing), to convert a blank into a completed button.

DISCUSSION—Fabrication may require turning of the face or back of the button with shaping tools, the drilling of sewing holes, and if required the grinding, slotting and any other decorative tooling or shank insertion which may be required.

face, *n*—as related to buttons, that portion of the disc which will be exposed after attachment to the substrate.

finish, *n*—in buttons, the surface condition or texture.

hole spacing, *n*—on a button, the distance from the center of one hole to another.

impact resistance, *n*—resistance to fracture under the sudden application of an external force.

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injection molding, *n*—the process that forms a button using liquefied polymer that is forced, under pressure, through a runner system (sprue, runner, gate(s)) into the cavity of a closed mold.

injection molded buttons, *n*—a disc which is formed when a liquid polymer used to fill a cavity is exposed to pressure cavity under pressure with polymer that will take the form of the mold when cooled.

laundering, *n*—(as related to care and maintenance) a process used to refurbish a textile product or parts thereof by (1) cleaning it in water containing a cleaning agent, and possibly bleach, (2) drying it, and (3) usually ironing or pressing it.