



Designation: F 1825 – 97<sup>ε1</sup>

## Standard Specification for Fixed Length Clampstick Type Live Line Tools<sup>1</sup>

This standard is issued under the fixed designation F 1825; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

<sup>ε1</sup> NOTE—Editorial corrections were made in February 1999.

### 1. Scope

1.1 This specification applies to the Clampstick type live line tools to ensure manufacturing processes and materials are compatible and no deterioration of components occur during the assembly process.

1.2 This specification establishes the technical characteristics for clampsticks.

1.3 This specification applies only to one piece fixed length clampsticks both hollow and foam-filled. It does not apply to folding, sectional, or telescopic type clampsticks.

1.4 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.5 The following safety hazards caveat pertains only to the test portions of this specification: *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 and health practices and determine the applicability of regulatory limitations prior to use.*

1.6 The use, maintenance, and in-service testing of this equipment is beyond the scope of this specification.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

D 149 Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies<sup>2</sup>

D 695 Test Method for Compressive Properties of Rigid Plastics<sup>3</sup>

F 711 Specification for Fiberglass-Reinforced Plastic (FRP) Rod and Tube Used in Live Line Tools<sup>4</sup>

F 819 Definitions of Terms Relating to Electrical Protective Equipment for Workers<sup>4</sup>

#### 2.2 IEC Standard:

IEC 832 Insulating Poles (Insulating Sticks) and Universal

Tool Attachments (Fittings) for Live Working<sup>5</sup>

### 3. Terminology

3.1 *Definitions*—Terminology used in this specification is in accordance with Definitions F 819.

#### 3.2 Definitions of Terms Specific to This Standard:

3.2.1 *clampstick, n*—a live line tool having a hand control with latching stops at the butt end mechanically connected by an insulating rod to a hook that retracts into a slotted ferrule at the head end.

3.2.1.1 *Discussion*—Clampsticks are used by qualified workers for high voltage application of hot line clamps, ground clamps, operation of energized apparatus and the like. Clampsticks are sometimes referred to as “shotgun sticks” or “grip all sticks”. Clampsticks shall provide insulation to the user while performing the above operations.

3.2.2 *design test, n*—a test made on a sample treated as representative of an industrial product. This test will not generally be repeated in quantity production.

3.2.3 *electrical test, n*—a test to ensure that a product meets minimum electrical requirements of a standard.

3.2.4 *FRP insulating tubes and rods, n*—fiberglass reinforced plastic (FRP) products manufactured so that the tubes and rods produced will meet the electrical and mechanical requirements of this specification.

3.2.5 *hand control, n*—lower control of the clampstick and connected to hook by an FRP rod.

3.2.6 *head ferrule, n*—a nonmetallic structural part with slots to accept clamp bases of standard size and allow the closing motion of the hook.

3.2.7 *mechanical test, n*—a test to ensure that a product meets minimum mechanical requirements of a standard.

3.2.8 *rear stop, n*—a device or devices that stop the rearward motion of the hand control when the tool has reached its fully retracted position.

3.2.9 *retract lock, n*—a locking means that allows the hand control to be positioned and releaseably latched between the safety stop and rear stop and prevents movement toward the safety stop.

3.2.10 *safety stop, n*—a releasable latch that automatically

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 10.01.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 08.01.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 10.03.

<sup>5</sup> Available from IEC, IEC Central Office, 3 rue de Varembe, P.O. Box 131, CH-1211, Geneva 20, Switzerland.