

GGG-C-291a

March 1, 1963

SUPERSEDING

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## FEDERAL SPECIFICATION

## CHALK LINE AND REEL (SELF-CHALKING)

*This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.*

## 1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers a chalk line and reel of the self-chalking type used for marking construction lines.

1.1.1 *Federal specification coverage.* Federal specifications do not cover all types and sizes of the commodity indicated by the titles of the specifications, but include only those generally used by the Federal Government.

## 1.2 Classification.

1.2.1 *Type.* This specification covers one type of chalk line and reel of the length specified in 3.5.4 and 6.1.

## 2. APPLICABLE SPECIFICATIONS AND STANDARDS

2.1 The following specifications and standards, of the issues in effect on date of invitation for bids, form a part of this specification:

*Federal Specifications:*

T-T-881—Twine; Cotton, Seine.  
 PPP-B-566—Boxes, Folding, Paperboard.  
 PPP-B-585—Boxes, Wood, Wirebound.  
 PPP-B-591—Boxes, Fiberboard, Wood-Cleated.  
 PPP-B-601—Boxes, Wood, Cleated-Plywood.

PPP-B-621—Boxes, Wood, Nailed-and Lock Corner.

PPP-B-636—Box, Fiberboard.

PPP-B-665—Boxes, Paperboard, Metal Stayed (Including Stay Material).

PPP-B-676—Boxes, Set-Up, Paperboard.

PPP-T-76—Tape, Pressure Sensitive Adhesive Paper, Water Resistant (for Carton Sealing).

*Federal Standards:*

Fed. Std. No. 102—Preservation, Packaging, and Packing Levels.

Fed. Std. No. 123—Marking for Domestic Shipment (Civilian Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications, Standards, and Handbooks and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge at the General Services Administration Regional Offices in Boston, New York, Washington, D. C., Atlanta, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, and Auburn, Wash.)

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications, Standards, and Handbooks from established distribution points in their agencies.)

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*Military Specifications:*

MIL-P-116—Preservation, Methods of.  
 MIL-B-10377—Box. Wood-Cleated,  
 Veneer, Paper Overlaid.  
 MIL-L-10547—Liners. Case, Water-  
 proof.

*Military Standards:*

MIL-STD-105—Sampling Procedures  
 and Tables for Inspection by Attri-  
 butes.  
 MIL-STD-129—Marking for Shipment  
 and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

**3. REQUIREMENTS**

**3.1 Illustration.** The illustration herein is descriptive and not restrictive and is not intended to preclude the purchase of chalk lines and reels otherwise conforming to this specification.

**3.2 Material.** The material used in the manufacture of chalk lines and reels, self-chalking, shall be of a good quality and shall conform to the requirements hereinafter specified. The material shall be free from defects and imperfections that may affect the serviceability of the finished product.

**3.3 Marking.** Each chalk line and reel shall be marked in a plain and permanent manner with the manufacturer's name or with a trademark of such known character that the source of manufacture may be readily determined.

**3.4 Finish.** All exposed metal parts, except those of corrosion-resistant material, shall be plated with zinc, cadmium or nickel, or provided with a baked enamel coating, or oxidized finish suitable for resisting corrosion. All corners and edges shall be rounded or chamfered to prevent injury to the user.

**3.5 Component parts.** The major components are the chalk line, reel assembly, and chalk powder. The component parts of the reel assembly are the case, reel, locking device and handle. The chalk line and reel shall be similar to figure 1.

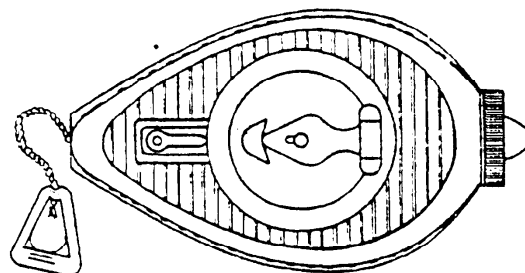


FIGURE 1.—Chalk line and reel, self-chalking.

**3.5.1 Case.** The case shall be of a corrosion-resistant metal, or provided with a corrosion-resisting finish as specified in 3.4. The case shall be not less than 0.025 inch thick. The case shall hold not less than 1 ounce of chalk powder that will continually impregnate the line with powder, and shall be capable of being refilled whenever necessary. The case shall be constructed to prevent the loss of any chalk powder under normal working conditions, and shall conform to the test specified in 4.2.3.

**3.5.2 Reel.** The reel shall be made of a corrosion-resistant metal, shall be substantially constructed, rotate freely, and shall be capable of holding the full length of line. The reel shall withstand the test specified in 4.2.3.

**3.5.3 Handle.** The handle shall be made of corrosion-resistant metal or provided with a corrosion-resisting finish as specified in 3.4. The handle shall be suitable for winding the line on the reel, and shall have a crank length of not less than 1 inch.

**3.5.4 Line.** The line shall be number 12, three-strand, medium seine twine conforming to T-T-881. Unless otherwise specified

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(see 6.1), lines shall be 50 feet in length. Additional lines for replacement shall be furnished when specified (see 6.1).

**3.5.5 Hook-ring.** The hook-ring shall be made of a corrosion-resistant metal, and shall provide a positive means for holding one end of the line to the object to be marked, permitting one-man operation of the chalk line.

**3.5.6 Locking device.** When in the "Off" position the locking device shall allow a free running line; when in the "On" position the locking device shall prevent the line from being pulled from the reel.

**3.5.7 Chalk powder.** Unless otherwise specified (see 6.1), chalk powder shall be white in color. Chalk powder shall be finely powdered, nonhardening and noncaking. Additional chalk powder for replacement shall be furnished in 1-ounce containers when specified (see 6.1).

**3.6 Workmanship.** Workmanship shall be first class in every respect. Chalk lines and reels shall be free from defects which may affect their durability and serviceability.

#### 4. SAMPLING, INSPECTION, AND TEST PROCEDURES

**4.1** Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facilities and services acceptable to the Government. Inspection records of the examination and tests shall be kept complete and available to the Government as specified in the contract or order. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

#### 4.2 Inspection.

**4.2.1 Lot.** All reels to be delivered at one time shall be considered a lot for purposes of sampling and inspection.

**4.2.2 Examination.** Sample reels shall be selected at random in accordance with MIL-STD-105 at inspection level II and acceptable quality level (AQL) shall be 1.5 percent. Reels shall be examined to verify conformance to all the requirements of this specification which do not involve tests. Any sample containing one or more defects shall cause rejection of the defective reel, and if the number of defective reels in any sample exceeds the acceptance number for that sample this shall cause rejection of the lot represented by the sample.

**4.2.3 Drop test.** Sample reels shall be selected from each lot in accordance with inspection level L-4. Each sample reel with chalk line shall be dropped by hand at least 10 times in various positions from a height of 5 feet onto a solid foundation, such as concrete, or a solid flat steel plate, after which it shall show no breaks or cracks and shall perform in a normal manner as specified in 3.5.1, 3.5.2, and 3.5.6. If any reel is damaged by the test, this shall cause rejection of the entire lot.

**4.3 Inspection of preparation for delivery.** Sample items and packs shall be selected and inspected in accordance with MIL-P-116 to verify conformance to the requirements of section 5 herein.

#### 5. PREPARATION FOR DELIVERY

(Civil agencies should refer to Fed. Std. No. 112 for definitions and applications of the various levels of packaging protection for supplies and equipment.)

##### 5.1 Preservation and packaging.

**5.1.1 Level A.** The chalk line and reel shall be individually preserved and packaged as specified (see 6.1), in accordance with method III of MIL-P-116. Contact preservative is not required.

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5.1.1.1 *Unit containers.* Unit containers shall conform to PPP-B-566, PPP-B-676, PPP-B-665 or PPP-B-636, at the option of the contractor. Sealing and closure of unit containers shall conform to the applicable container specification or appendix thereto.

5.1.1.2 *Intermediate containers.* Unit quantities in an intermediate container shall be as specified (see 6.1). Intermediate containers shall conform to PPP-B-566, PPP-B-676, PPP-B-665 or PPP-B-636, at the option of the contractor. Box closures shall conform to the applicable box specification or the appendix thereto. The gross weight of paperboard boxes shall not exceed 10 pounds and fiber boxes shall not exceed 20 pounds.

5.1.2 *Level C.* The chalk lines and reels shall be preserved and packaged in a manner that will afford adequate protection against corrosion, deterioration, and physical damage during shipment from supply source to the first receiving activity for immediate use. This may conform to the supplier's commercial practice, when such meets the requirements of this level.

## 5.2 Packing.

5.2.1 *Level A.* Chalk lines and reels, packaged as specified (see 6.1), shall be packed in any of the following containers, selection of the container to be at the option of the contractor:

<i>Specification</i>	<i>Type or class</i>
PPP-B-585	Class 3 use
PPP-B-591	Overseas type
PPP-B-601	Overseas type
PPP-B-621	Class 2
PPP-B-636	Class 2
MIL-B-10377	Overseas type

Shipping containers shall have case liners conforming to MIL-L-10547. Case liners shall be closed and sealed in accordance

with the appendix to MIL-L-10547. Case liners for boxes conforming to class 2 of PPP-B-636 may be omitted provided all corner and edge seams and manufacturer's joints are sealed with minimum 1-1/2-inch-wide tape conforming to PPP-T-76. Boxes shall be closed and strapped or banded in accordance with the applicable box specification or appendix thereto. The gross weight of wood or wood-cleated boxes shall not exceed 200 pounds.

5.2.2 *Level B.* Chalk lines and reels, packaged as specified (see 6.1), shall be packed in any of the following containers, selection of container to be at the option of the contractor:

<i>Specification</i>	<i>Type or class</i>
PPP-B-585	Class 1 or 2 use
PPP-B-591	Domestic type
PPP-B-601	Domestic type
PPP-B-621	Class 1
PPP-B-636	Class 1 or 2 as specified (see 6.1)
MIL-B-10377	Domestic type

Box closure shall be as specified in the applicable box specification or appendix thereto. The gross weight of wood or wood-cleated boxes shall not exceed 200 pounds.

5.2.3 *Level C.* The chalk lines and reels, packaged as specified (see 6.1), shall be packed in containers which will insure acceptance by common carrier and safe delivery at destination. Shipping containers or method of shipment shall comply with rules or regulations of carriers as applicable to the mode of transportation.

## 5.3 Marking.

5.3.1 *Military agencies.* In addition to any special marking required by the contract or order or herein, interior and ex-

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terior shipping containers shall be marked in accordance with MIL-STD-129.

5.3.2 *Civil agencies.* In addition to any special marking required by the contract or order, interior and exterior shipping containers shall be marked in accordance with Fed. Std. No. 123.

## 6. NOTES

6.1 Purchasers should exercise any desired options offered herein and procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) If other than 50-foot line is required (see 3.5.4).
- (c) Quantity of additional lines required (see 3.5.4).
- (d) If other than white chalk powder is required (see 3.5.7).
- (e) Quantity of additional chalk powder required (see 3.5.7).
- (f) Unit quantities per intermediate container (see 5.1.1.2).

(g) Selection of applicable levels of preservation, packaging and packing required (see 5.1 and 5.2).

(h) Class, if boxes conforming to PPP-B-636 are used (see 5.2.2).

(i) Marking, if different (see 5.3).

**Notice.** When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

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