

[NOT MEASUREMENT SENSITIVE]

A-A-59291
21 July 1998
SUPERSEDING
MIL-I-6903C
5 March 1968

COMMERCIAL ITEM DESCRIPTION

INK, MARKING (FOR PARACHUTES AND OTHER TEXTILE ITEMS)

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. **SCOPE.** This commercial item description (CID) covers a permanent and colorfast marking ink for fabrics and webbing. The ink is generally used to identify parachute components and other items of cloth construction. It is available for use in various methods of application that are identified by type.

2. **CLASSIFICATION.** The ink shall be of the following colors and is available in various methods of application that have been designated by types:

2.1 **Colors.** Colors shall be light blue, orange-yellow, or black.

2.2 **Types (Methods of Application).**

- Type I - Stamp pad
- Type II - Felt tip
- Type III - Ball point
- Type IV - Stencil

3. **SALIENT CHARACTERISTICS.**

3.1 **Thinner.** When required, a thinner, and instructions for its use, shall be available for use with the ink.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data which may improve this document should be sent to: Commander, Naval Air Warfare Center Aircraft Division, Code 414100B120-3, Highway 547, Lakehurst, NJ 08733-5100.

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3.2 Legibility and Drying. The ink, regardless of method of application, shall produce a sharp, legible impression of uniform intensity on nylon cloth and nylon webbing that will dry within 10 seconds.

3.3 Fastness. The ink impressions on nylon cloth and nylon webbing shall show good fastness to laundering, when tested in accordance with AATCC 61, and weathering (light fastness), and shall not run or spread in water and salt water.

3.4 Performance. Performance characteristics of nylon cloth and nylon webbing that has been marked with the ink shall be in accordance with table I.

TABLE I. Breaking strength of nylon cloth and nylon webbing.

Property	Requirement	Test Method or Paragraph
Initial (unmarked)	As reported	ASTM D 5035
Initial (marked), minimum	95% of unmarked value	
After weathering (marked), minimum <u>1/</u>	90% of initial unmarked value	ASTM G 23, ASTM D 5035
After distillation (marked), minimum	90% of initial unmarked value	3.4.1
After oven aging (marked), minimum	90% of initial unmarked value	3.4.2

1/ 80 hours of exposure

3.4.1 Distillation. A 50-milliliter sample of marking ink shall be steam distilled in an apparatus so that the temperature of the ink does not exceed that of the boiling water. Raveled specimens of nylon cloth and the center section of specimens of nylon webbing shall be immersed in the top layer of distillate for 1 hour. The specimens shall then be removed, air dried, conditioned at a temperature of $21^{\circ} \pm 1^{\circ}\text{C}$ ($70^{\circ} \pm 2^{\circ}\text{F}$) and a relative humidity of 65 ± 2 percent, and tested for breaking strength in accordance with ASTM D 5035.

3.4.2 Oven Aging. Specimens of nylon cloth and nylon webbing shall be exposed in an air-circulating oven at a temperature of 71.1°C (160°F) for 100 hours. The specimens shall then be removed, conditioned at a temperature of $21^{\circ} \pm 1^{\circ}\text{C}$ ($70^{\circ} \pm 2^{\circ}\text{F}$) and a relative humidity of 65 ± 2 percent, and tested for breaking strength in accordance with ASTM D 5035.

3.5 Stability.

3.5.1 Storage. The ink shall show no signs of livering, curdling, or excessive bodying and shall produce sharp, legible impressions on nylon cloth when stored in its original, unopened container at a temperature of 43°C (110°F) for 100 hours.

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3.5.2 Exposure. Ink, when applied to a stamp pad, shall not harden or form a crust and shall produce sharp, legible impressions of uniform intensity on nylon cloth when exposed to the atmosphere at a temperature of $21^{\circ} \pm 1^{\circ}\text{C}$ ($70^{\circ} \pm 2^{\circ}\text{F}$) and a relative humidity of 65 ± 2 percent for 6 hours.

4. REGULATORY REQUIREMENTS

4.1 Regulatory Requirements. The offeror/contractor is encouraged to use recovered materials to the maximum extent practical, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4.2 Toxicity. The use of benzene or carbon tetrachloride and any known carcinogens as ingredients is prohibited. Trace amounts of benzene derivatives present in commercial grades of acceptable aromatics are permissible. Inks shall contain no chlorinated compounds or other toxic hydrolyzable chlorine derivatives. The use of any toxic substance must be in accordance with applicable federal statutes.

4.3 Material Safety Data Sheets. Material safety data sheets shall be furnished in accordance with FED-STD-313. The pertinent Government mailing addresses for submission of data are listed in appendix B of FED-STD-313.

5. QUALITY ASSURANCE PROVISIONS.

5.1 Product Conformance. The product provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Market Acceptability. The following market acceptability criteria are necessary to document the quality of the product to be provided under this CID.

5.2.1 The company producing the marking ink must have been producing a product meeting the requirements of this CID for at least 6 months.

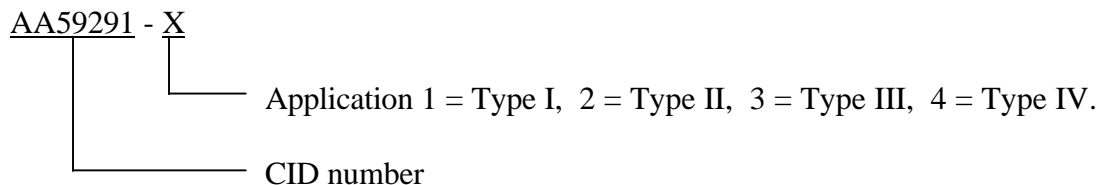
6. PACKAGING.

6.1 Preservation, Packing, and Marking. Preservation, packing, and marking shall be as specified in the contract or order.

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7. NOTES.

7.1 Part Identification Number (PIN). The following part identification numbering procedure is for this document.



7.2 National Stock Numbers.

7510-00-144-9672
 7510-00-286-5362
 7510-00-634-6583
 7510-01-235-2607

7.3 Source of Documents.

7.3.1 AATCC Test Methods are available from the American Association of Textile Chemists and Colorists, 1 Davis Drive, P.O. Box 12215, Research Triangle Park, NC 27709-2215.

7.3.2 ASTM Standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.3.3 The Federal Acquisition Regulation (FAR) may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001.

7.3.4 Federal Standards and Specifications may be obtained from the General Services Administration Specifications Section, Suite 8100, 470 E. L'Enfant Plaza, SW, Washington, DC 20407.

7.4 Ordering Information. The purchaser should select the required options permitted herein and include the following information in procurement documents:

- a. Title, number, and date of this commercial item description.
- b. Application type.
- c. Color.
- d. Preservation and packing.

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**MILITARY INTERESTS:
ACTIVITY:**

Custodians:

Army - GL

Navy - AS

Air Force - 99

Review Activities:

Army - CR4, MI

Navy - SA

CIVIL AGENCY COORDINATING

GSA/FSS – 2FYE

Preparing Activity:

Navy - AS

(Project 7510-0414)