

53-GP-61
November 1960
CANCELLATION
June 1972

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard
for

INK FOR FELT - TIP MARKERS

This standard is hereby cancelled. It is no longer required for government procurement.



CANADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

SPECIFICATION

FOR

INK FOR FELT-TIP MARKERS

53-GP-61

18 NOVEMBER 1960

THIS SPECIFICATION APPLIES TO QUICK-DRYING MARKING INK FOR USE WITH
FELT-TIP FOUNTAIN-TYPE MARKERS ON POROUS AND NONPOROUS SURFACES.

DEPARTMENT OF DEFENCE PRODUCTION, OTTAWA, CANADA

Price

10 CENTS

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Subcommittee J - PP&S Catalogue Review

(Membership at date of approval by the Committee and Subcommittee
for submission to the Canadian Government Specifications Board)

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CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

INK FOR FELT-TIP MARKERS

1. DEFINITION

1.1 This specification applies to quick-drying marking ink for use with felt-tip fountain-type markers on porous and nonporous surfaces.

2. APPLICABLE PUBLICATIONS

2.1 The following publications contain requirements applicable to this specification:

CGSB 4-GP-2, Canadian Standard Textile Test Methods.
CGSB 53-GP-62, Marker; Fountain Type, Felt Tip.

2.2 Reference to the above publications is to the issues in effect on the date of invitation to tender, unless otherwise specified.

3. CLASSIFICATION

3.1 Type - The marking ink shall be of one type.

4. GENERAL REQUIREMENTS

4.1 Material - The manufacturer is given latitude in the selection of raw materials and processes of manufacture, provided the product meets the requirements of this specification.

4.2 Composition - The ink shall consist essentially of a dye dissolved in an organic solvent. Binding ingredients to provide surface adhesion may be added.

4.3 Toxicity - The ink shall contain no benzol (benzene), aniline oil, chlorinated compounds, or other toxic or hydrolyzable chlorine derivatives. The suppliers shall furnish to the contracting officer a certificate of compliance with the requirements of this paragraph.

5. DETAIL REQUIREMENTS

5.1 Colors - Unless otherwise specified, marking ink shall be furnished in one of the following colors: black, blue, green, red, purple.

5.1.1 Markings - Markings made as described in par. 7.3.1 shall be of the color specified and clearly legible.

5.2 Drying Time - Ink on panels prepared and tested in accordance with par. 7:3.1 and 7.3.2 shall not smear or smudge the writing paper used in the test.

5.3 Resistance to Water - Ink on panels prepared and tested in accordance with par. 7.3.1 and 7.3.3 shall not smear or smudge the writing paper used in the test. A slight dulling in color of the ink on the panels is permissible.

5.4 Light Fastness - The ink shall show not more than slight fading and no evidence of marked color change when tested as described in par. 7.3.4.

5.5 Clogging of Markers - Markers shall show no evidence of clogging or difficulty in starting ink flow after being unused for a period of 96 hours (see par. 7.3.5).

5.6 Effect on Applicator - The ink shall not contain ingredients that have a deleterious effect on fountain markers used in its application (see par. 7.3.5).

6. PREPARATION FOR DELIVERY

6.1 Packaging - Unless otherwise specified, marking ink shall be furnished in 2, 3, 4, 16 and 32 ounce containers, as specified in the invitation to tender.

6.2 Packing - Unless otherwise specified, marking ink shall be packed in standard commercial containers so constructed as to insure acceptance by common or other carriers for safe transportation at the lowest rate to the point of delivery.

6.3 Marking

6.3.1 Unit Containers - Unless otherwise specified, unit containers shall be marked with the name of the material, color, quantity contained therein, month and year of manufacture and the name of the contractor or manufacturer.

6.3.2 Shipping Containers - Unless otherwise specified, shipping containers shall be marked with the name and color of the material as defined by the purchase order under which the shipment is made, quantity contained therein, date, name of contractor, number of the contract or order, name and address of the consignee and the gross weight.

7. INSPECTION

7.1 Sampling for Lot Inspection

7.1.1 Inspection Lot - For purposes of sampling, a lot shall consist of all ink of the same color manufactured as one batch and offered for delivery at one time.

7.2 Inspection - Samples from each delivery shall be inspected for compliance with all requirements of this specification, and failure to meet one or more of these requirements shall be cause for rejection of the lot represented by the samples.

7.3 Tests

7.3.1 Preparation of Test Panels - A clean fountain-type marker shall be filled with the ink to be tested. The marker shall conform to Type I of CGSB Specification 53-GP-62, markings shall be made on water-resistant solid-fiberboard panels, veneer plywood, burlap and on cleaned tin-plate panels, all cut to approximately 2-1/2 x 6 inches.

7.3.2 Drying Time - Panels prepared as specified in par. 7.3.1 shall be allowed to dry at room temperature of 70 to 90 °F for 1 minute (2 minutes for tin-plate panels). Immediately after the specified drying time, place a sheet of white chemical-wood writing paper over the markings. Place a 100 gram weight on one edge of the paper and draw the sheet of paper and the weight slowly across the markings. Examine the paper for smudge.

7.3.3 Resistance to Water - Panels prepared as specified in par. 7.3.1 shall be allowed to dry at room temperature of 70 to 90 °F for 1 hour, and shall then be immersed to a depth corresponding to two-thirds of the height of the markings for 4 hours. Panels shall be removed at end of immersion period and dried at a temperature of 70 to 90 °F for 1 hour. Test for smudging as described in par. 7.3.2.

7.3.4 Light Fastness - Solid-fiberboard panels, prepared as specified in 7.3.1, shall be allowed to dry at a room temperature of 70 to 90 °F for 1 hour. Two test specimens, 2-1/2 x 3 inches, with markings, shall be cut from a panel. One specimen shall be exposed to light for 96 hours in the case of black colors and 24 hours in the case of other colors, as described in Method 18 of CGSB 4-GP-2, and the other specimen retained but not exposed. The two specimens shall then be examined to determine conformance with par. 5.4.

7.3.5 Clogging and Deterioration of Markers - Fill clean markers, conforming to Type I and Type III, Style B, of CGSB Specification 53-GP-62, with ink to be tested and make sufficient markings to thoroughly saturate the felt nib. Replace covers on markers and allow them to stand undisturbed with the felt tip up for 96 hours. Then remove cover and make new markings. A few initial strokes shall be made to permit flow of ink to saturate nib. The felt nib shall be examined for breakage and evidence of disintegration after the exposure period and during the markings. Clean the markers thoroughly and examine for pitting and deterioration of the nib.

8. NOTES

8.1 Publications referred to in paragraph 2.1 may be obtained from the CGSB Secretary.

8.2 Ordering Data - Purchasers shall specify color of ink required, size of container, and shall exercise any desired options offered herein.

8.3 Intended Use - Marking ink covered by this specification is intended for use in felt-tip marking pens for freehand marking, writing or drawing on material such as fiberboard, paper, wood, burlap or metal.