

Canadian General Standards Board

CGSB

Office des normes générales du Canada

ONGC

**1-GP-115c
February 1962**

**(F)1-GP-115c
Février 1962**

WITHDRAWAL

October 1986

**CANADIAN GENERAL
STANDARDS BOARD**

INK, PASTE

This standard is hereby withdrawn. It has been determined that the material covered by this standard is no longer used in quantities that would warrant the continued maintenance of the standard.

RETRAIT

Octobre 1986

**OFFICE DES NORMES
GÉNÉRALES DU CANADA**

ENCRE EN PÂTE

Cette norme est retirée par le présent avis. Il a été constaté que le matériau qui fait l'objet de la présente norme n'est plus utilisé en quantité suffisante pour maintenir cette norme en vigueur.

Canada



CANADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

SPECIFICATION

FOR

INK; PASTE

1-GP-115c

9 FEBRUARY 1962

SUPSEDES 1-GP-115B

30 SEPTEMBER 1960

THIS SPECIFICATION APPLIES TO QUICK-DRYING INK PASTE SUITABLE FOR APPLICATION BY TRANSFER FROM A RUBBER-MAT STENCIL, BY HAND OR AUTOMATIC STENCILLING MACHINES, SPECIFICALLY TO AMMUNITION AND CYLINDRICAL AMMUNITION CONTAINERS.

NATIONAL RESEARCH COUNCIL, OTTAWA, CANADA

Price

15 CENTS

COMMENTS AND ENQUIRIES REGARDING THE TECHNICAL CONTENT OF THIS SPECIFICATION SHOULD BE ADDRESSED TO THE CGSB SECRETARY.

COMMITTEE ON SPECIFICATIONS FOR PAINTS,
PIGMENTS AND RELATED COMMODITIES
and
Subcommittee
on

Aeronautical, Equipment and Ammunition Paints

(Membership at date of approval by the Committee
for submission to the CGSB)

Apperson, J.	Department of Defence Production
Armstrong, W.N.B.	Ontario Research Foundation
Ashton, H.E.	National Research Council/DBR
Attendu, F/L M.C.	Department of National Defence/RCAF
Barry, E.	Canadian Paint, Varnish and Lacquer Assoc.
Beckwith, Dr. N.P.	Rinsched-Mason Company of Canada Limited
Bell, J.K. (Subcommittee Chairman)	Department of National Defence/Army
Biddle, W.H.	General Paint Corporation
Black, J.W.	Department of National Defence/Army
Cassidy, J.W.	Canadian Arsenals Limited
Cheesman, H.	Department of National Defence/RCAF
Conen, A.J.	Rinsched-Mason Company of Canada Limited
Coutts, J.	Canadian Arsenals Limited
DeLisle, E.J.	Department of Defence Production
Dingley, W.	Department of Mines and Technical Surveys
Dunn, G.S.	Inspection Services/DND
Eastman, A.L.	Conant Paints Limited
Farr, Dr. H.O.	Canadian Pittsburgh Industries Limited
Gibbons, E.V.	National Research Council/DBR
Girard, J.G.	Department of National Defence/Army
Hargrave, D.	Sherwin-Williams Company of Canada Ltd.
Harrington, J.M.	Department of Forestry
Harris, J.	National Research Council/DBR
Head, E.M.	Canadian Pittsburgh Industries Limited
Hooper, J.S.	Roxalin of Canada Limited
Ireland, W.J.	Department of Public Works/Testing Labs
Kaufmann, C.H.	Canadian Industries Limited
Kennedy, R.	Scarfe and Company
Krayer-Krauss, E.	Crown Diamond Paint Company
Laing, W.H.	British America Paint Company
Latham, W.A.	Department of Justice
Laycraft, N.E. (Committee Chairman)	Department of Public Works/Testing Labs
Margolis, J.	Canadian Arsenals Limited
McIntyre, A.W.	British America Paint Company Limited
McIntyre, Capt. J.S.	Department of National Defence/Army
McLean, P.D.	Department of National Defence/RCAF
McPherson, Miss E.M.	Defence Research Board/DND
Mercer, C.R.	Brandram-Henderson Limited
Mitchell, Dr. J.H.	Canadian Industries Limited
Miller, C.	Protective Coatings Limited
Moore, B.	Imperial Flo-Glaze Paints Limited
Olson, J.J.	Department of Public Works
Power, J.M.	Department of National Defence/Navy
Reeves, J.W.	Department of National Defence/Navy
Rubec, P.	Testing Laboratories/DPW
Semenick, M.T.	Department of National Defence/Navy
Showalter, Dr. H.A.	Inspection Service/DND
Slaght, L.E.	Department of Transport
Smith, S/L D.	Department of National Defence/RCAF
Steele, F.L.	The Glidden Company Limited
Wainman, R.	Imperial Flo-Glaze Paints Limited
Watt, J.W.	National Harbours Board
Whiteley, J.K.	DuPont Company of Canada Limited
Wolochow D. (Secretary)	CGSB/National Research Council

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

INK; PASTE

1. DEFINITION

1.1 This specification applies to quick-drying ink paste suitable for application by transfer from a rubber mat stencil, by hand or automatic stencilling machines, specifically to ammunition and cylindrical ammunition containers.

1.2 For more detailed information on uses, see 8.1.

2. APPLICABLE PUBLICATIONS

The following publications are applicable to this specification:

2.1 CGSB 1-GP-12, Standard Paint Colors.

2.2 CGSB 1-GP-71, Methods of Testing Paints and Pigments.

2.3 ASTM Standards on Paint, Varnish, Lacquer and Related Products (and latest supplement).

2.4 Reference to the above publications and other specifications is to the issues in effect on the date of invitation to tender, unless otherwise specified.

3. CLASSIFICATION

3.1 The ink shall be supplied in the following classes, as specified by the purchaser:

Class I - For hand application.

Class II - For machine application.

3.2 When Class II ink is specified, prospective suppliers shall submit evidence that the ink is suitable for application in the purchaser's automatic stencilling machines.

4. GENERAL REQUIREMENTS

4.1 Ink to this specification shall be produced from materials of the highest quality to give maximum serviceability, ease of application and good appearance.

4.2 The ink shall consist of color-stable pigments adequately dispersed in a suitable quick-drying vehicle.

4.3 The ink shall produce a smooth, uniform, flat finish of good appearance and durability.

4.4 Color - The color of the ink shall conform to any 1-GP-12 flat color specified by the purchaser.

4.5 The ink shall not gel, thicken excessively or cake in the original unopened containers for one year from date of shipment when stored at a temperature not exceeding 100°F (38°C). At the end of this time the ink shall be readily mixed to a uniform condition by stirring and shall be suitable for use.

4.6 Qualification - When requested by the purchaser, the ink shall be a product qualified by the specified procedure, and such qualification shall be a prerequisite for tendering (see 8.3).

5. DETAIL REQUIREMENTS

Ink to this specification shall comply with the following detail requirements:

		Test Method			
		Min	Max	1-GP-71	ASTM
5.1	Drying Time				
5.1.1	Surface-dry, min	-	10	5.11	-
5.1.2	Hard-dry, hr	-	4	5.11	-
5.2	Fineness of Grind, Hegman	5	-	-	D1210
5.3	Benzene (Benzol)	-	Nil	65.1	-
5.4	Chlorinated Solvents boiling below 257°F (125°C)	-	Nil	73.1	-

5.5 Consistency - The ink shall be supplied as a fluid that shall show no undue flow when placed on a glass plate, but shall be readily rolled out by a brayer and shall easily wet the brayer evenly and completely. When applied to the stencil letters, the ink shall transfer neatly, and wet the rubber letters with no more effort than required by two passes of the brayer. The ink shall cut neatly to form sharp edges on the letters and shall not tend to flow into the crevices.

5.6 Water Resistance - A film of the ink shall withstand 24 hours immersion in water at 73 ± 3.5°F (23 ± 2°C) without blistering, wrinkling or lifting. After 2 hours subsequent drying, there shall be no softening nor loss of adhesion and not more than a trace of color change.

Method 110.1*

5.7 Scratch Resistance - The ink shall pass the scratch test under a load of 1,000 grams.

Method 116.2*

5.8 Flexibility - The dry ink film shall show no cracking when bent over a 1/4 inch mandrel.

Method 119.9*

5.9 Accelerated Weathering - A film of the ink applied in the specified manner to a painted surface shall withstand ten 24-hour cycles of accelerated weathering without showing any deterioration of the film integrity, loss in adhesion to the substrate, marked color change, or chalking.

Method 122.16

See par. 7.4 for panel preparation.

5.10 Application Properties - The ink shall transfer to provide legible letters uniform in film thickness and free from ragged edges and smears, when applied from a rubber mat stencil by a rolling action by hand or in automatic stencilling machines to painted metal surfaces and spirally wound fiber containers.

Method 136.1

5.11 Outdoor Exposure - When exposed for 6 months in the Miami, Florida, area, one coat of ink applied to steel primed with 1-GP-81 primer shall show no appreciable film deterioration, no loss of adhesion and not more than moderate chalking or color change, except that Yellow 5-201 and 5-202 may show some darkening.

Method 143.3

6. PREPARATION FOR DELIVERY

6.1 Unless otherwise specified, commercial packaging, packing and marking shall be acceptable.

6.2 Labelling - In addition to labelling required by any relevant Acts or Regulations, each container shall be suitably labelled to show the following information:

Manufacturer's Name and Address
Name of Material
CGSB Specification No. and Class
Qualification No. (when required)
1-GP-12 Color
Manufacturer's Batch No.
Manufacturer's Code No.
Date of Manufacture
Thinning Instructions, using 1-GP-70 or 1-GP-94 thinner.

7. INSPECTION

7.1 Sampling - Sampling shall be carried out in accordance with Method 1.1 of CGSB 1-GP-71.

7.2 Testing - Unless otherwise specified, the methods of testing shall be those in 1-GP-71 or in ASTM Standards on Paint, Varnish, Lacquer and Related Products, using the method specified with each requirement.

7.3 Classification of Tests - Tests for determining compliance with this specification shall be classified as follows:

7.3.1 Qualification Tests - Those tests that are performed on all samples submitted for qualification as a satisfactory product. They shall consist of the tests necessary to establish compliance with all the requirements of this specification.

7.3.2 Lot Acceptance Tests - Those tests that are used to determine the acceptability of a lot or batch of a qualified product. The testing authority may test the material for compliance with any of the requirements of this specification, except outdoor exposure (5.11), and may reject a lot or batch on the basis of any requirement in the specification.

7.4 Panel Preparation - The instructions in the original methods shall be disregarded and test films shall be prepared as follows: A portion of the ink is placed on a clean glass plate and rolled out uniformly by means of a brayer 2 to 3 in. wide. When the surface of the brayer has been completely and evenly coated, the ink is transferred to clean tinplate panels (Method 101.1) to apply a uniform dry film of 0.4 ± 0.1 mils. The panels are dried 24 hr (Method 103.1), and baked 2 hr (Method 103.2) at 60°C (140°F). After cooling 30 min, the panels are tested according to the specified test methods.

8. NOTES

8.1 Intended Uses - Ink paste complying with this specification is intended for application by transfer from a rubber mat stencil by hand or automatic stencilling machines, specifically to ammunition and cylindrical ammunition containers. It may also be used on primed steel cartridge cases, but is not intended for use on brass cartridge cases.

8.2 Ordering Data - The purchaser shall specify class; color; packaging, packing and marking if commercial practice is not suitable; and if qualification is required.

8.3 Qualification Procedure - Details of procedure for qualification of 1-GP-115 inks may be obtained through:

Controller-General
Inspection Services
Department of National Defence
Ottawa, Ontario.

8.4 Related Specifications - This specification supersedes Inspection Board Specification INB 92, Marking Material for Ammunition, Quick Drying.

8.5 The publications referred to in 2.1 and 2.2 are obtainable from the CGSB Secretary.

8.6 The publication referred to in 2.3 is obtainable from the American Society for Testing and Materials, 1916 Race Street, Philadelphia 3, Pa., U.S.A.

Correspondence regarding this specification should be addressed to the Secretary, Canadian Government Specifications Board, National Research Council, Ottawa, Canada.