

9-GP-25
3 March 1967
CANCELLATION
February 1971

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard
for

PAPER: BOOK

This standard is hereby cancelled and is superseded by CGSB 9-GP-27, Paper, No. 1 Book, Letterpress; CGSB 9-GP-28, Paper, Offset; and CGSB 9-GP-29, Paper, Book, No. 1 Litho and No. 1 Opaque Litho, all dated December 1968.



NADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

STANDARD

FOR

PAPER: BOOK

9-GP-25

3 MARCH 1967

ARCHIVES COPY

THIS STANDARD APPLIES TO A RANGE OF BOOK PAPERS FOR USE IN PRINTING PUBLICATIONS SUCH AS BOOKS, MAGAZINES, PERIODICALS AND BROCHURES.

DEPARTMENT OF DEFENCE PRODUCTION, OTTAWA, CANADA

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CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard
for

PAPER: BOOK

1. DEFINITION

This standard applies to a range of book papers for use in printing publications such as books, magazines, periodicals and brochures.

2. APPLICABLE PUBLICATIONS

The following publications contain requirements applicable to this standard:

2.1 Canadian Pulp and Paper Association (CPPA)

- D.3 Basis Weight of Paper
- D.5 Bulking Thickness of Paper and Paperboard
- D.8 Bursting Strength of Paper

2.2 Technical Association of the Pulp and Paper Industry (TAPPI)

- T401m Fibre Analysis of Paper and Paperboard
- T425m Opacity of Paper
- T435m Hydrogen Ion Concentration (pH) of Paper
- T452m Brightness of Paper and Paperboard
- T459m Wax Test for Surface Strength of Paper
- T480m Specular Gloss of Paper and Paperboard at 75 Deg.

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

3. CLASSIFICATION

Book papers according to this standard shall be of the following types, numbers or classes, as specified by the purchaser:

3.1 Type I - Coated offset

- No. 1
- No. 2

3.2 Type II - Uncoated offset

- No. 1 Offset
- No. 1 Offset, Fluorescent
- No. 1 Litho, Supercalendered (S.C.)
- No. 1 Litho, English Finish (E.F.).

3.3 Type III - Coated letterpress

No. 1

No. 2

3.4 Type IV - Uncoated letterpress

Supercalendered (S.C.)

English Finish (E.F.)

4. GENERAL REQUIREMENTS

4.1 Curl - The paper shall lie flat with not more than slight curl that can be overcome under normal working conditions.

4.2 Surface Condition - The paper shall conform to the following surface condition requirements, according to type:

4.2.1 Type I - The surface shall be uniform, and reasonably free from mottle and any particles that will pick, lift or pile under normal press conditions.

4.2.2 Type II - The surface shall be reasonably free from lint, fuzz and any particles that will pick, lift or pile under normal press conditions.

4.2.3 Type III - The surface shall be uniform and reasonably free from mottle.

4.2.4 Type IV - The surface shall be uniform.

5. DETAIL REQUIREMENTS

5.1 Size - Trimmed book paper shall be furnished in the sheet sizes specified by the purchaser. The paper shall not be undersize and not more than 1/8 inch oversize in either direction; except that for sheet sizes up to and including 8½ x 14 inches, the paper shall not be undersize and not more than 1/16 inch oversize in either direction, and successive sheets within any package shall differ from one another by not more than 1/64 inch.

5.2 Trim - The paper shall be trimmed with clean, smooth edges and evenly jogged. Sheets shall be square on all four sides within a tolerance of 1/32 inch in each 30 inches, as determined on a squaring table. The edge bow in individual sheets shall be not more than 1/32 inch in each 30 inches, as determined by turning a sheet over, butting an edge against the corresponding edge of the sheet below, measuring the gap between them and taking one-half of this measurement.

5.3 Basis Weight - Book paper shall be furnished in the basis weights specified by the purchaser from the ranges listed in Tables I to X inclusive. Average actual weight shall conform to the specified weight within a tolerance of ± 5 per cent.

5.4 Thickness - Sheet thicknesses shall conform to the values listed in Tables I to X inclusive, within a tolerance of ± 0.0005 inch. Individual sheets shall be uniform in thickness, and shall not vary by more than 0.0004 inch from one edge to the other.

5.5 Grain Direction - Direction of the grain on flat paper shall be as specified by the purchaser.

5.6 Color - The paper shall be white in color, and shall be an acceptable visual match with the reference sample provided by the purchaser, when evaluated as described in 7.2.1.

5.7 Type I, Coated Offset Papers - Coated offset papers shall conform to the physical requirements listed in Tables I or II.

5.7.1 Stock - As determined by TAPPI T401m, the paper shall be free from groundwood pulp; unbleached chemical wood pulp shall not exceed 10 per cent; remainder shall be bleached chemical wood pulp.

5.7.2 Hydrogen Ion Concentration (pH) - The pH value of the coating on Type I papers shall be not less than 6.5, as determined by TAPPI T435m.

TABLE I

Physical Requirements for Type I, No. 1 Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Brightness minimum average (TAPPI T452)	Specular Gloss average (TAPPI T480m)
Pounds	Inch	Per Cent	
120	0.0030	84	50 - 60
140	0.0033	84	50 - 60

TABLE II

Physical Requirements for Type I, No. 2 Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Brightness minimum average (TAPPI T452)	Specular Gloss average (TAPPI T480m)
Pounds	Inch	Per Cent	
120	0.0030	81	50 - 60
140	0.0033	81	50 - 60

5.8 Type II, Uncoated Offset Papers - Uncoated offset papers shall conform to the requirements listed in Tables III, IV, V or VI.

5.8.1 Stock - As determined by TAPPI T401m, the paper shall be free from unbleached or groundwood pulp.

5.8.2 Hydrogen Ion Concentration (pH) - The pH value of the paper shall be not less than 4.4, as determined by TAPPI T435m.

5.8.3 Pick Resistance - The paper shall show a Wax Strength Number of at least 11A when tested according to TAPPI T459m.

5.8.4 Finish - Type II, No. 1 Litho S.C. and No. 1 Litho E.F. papers shall have a finish that is an acceptable visual match with the applicable reference sample provided by the purchaser, when evaluated as described in 7.2.1.

TABLE III

Physical Requirements for Type II, No. 1 Offset Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Opacity minimum (TAPPI T425)	Brightness, minimum average (TAPPI T452)
Pounds	Inch	Per Cent	Per Cent
100	0.0035	82	78
120	0.0042	86	78
140	0.0047	88	78
160	0.0056	91	78

TABLE IV

Physical Requirements for Type II, No. 1 Offset
Fluorescent Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Opacity minimum (TAPPI T425)	Brightness minimum average (TAPPI T452)
Pounds	Inch	Per Cent	Per Cent
100	0.0035	84	88
120	0.0042	87	88
140	0.0047	89	88
160	0.0056	91	88

TABLE V

Physical Requirements for Type II, No. 1 Litho S.C. Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Opacity minimum (TAPPI T425)	Brightness minimum average (TAPPI T452)
Pounds	Inch	Per Cent	Per Cent
80	0.0025	78	75
100	0.0029	82	75
120	0.0034	85	75

TABLE VI

Physical Requirements for Type II, No. 1 Litho E, F. Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Opacity minimum (TAPPI T425)	Brightness minimum average (TAPPI T452)
Pound	Inch	Per Cent	Per Cent
80	0.0029	79	77
100	0.0035	84	77
120	0.0040	88	77

5.9 Type III, Coated Letterpress Papers - Coated letterpress papers shall conform to the requirements listed in Tables VII or VIII,

5.9.1 Stock - As determined by TAPPI T401m, the paper shall be free from groundwood pulp; unbleached chemical wood pulp shall not exceed 10 per cent; remainder shall be bleached chemical wood pulp.

TABLE VII

Physical Requirements for Type III, No. 1 Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Brightness minimum average (TAPPI T452)	Specular Gloss average (TAPPI T480m)
Pounds	Inch	Per cent	
120	0.0030	83	60 - 70
140	0.0035	83	60 - 70

TABLE VIII

Physical Requirements for Type III, No. 2 Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Thickness average (CPPA D5)	Brightness minimum average (TAPPI T452)	Specular Gloss average (TAPPI T480m)
Pounds	Inch	Per Cent	
120	0.0030	81	50 - 60
140	0.0035	81	50 - 60

5.10 Type IV, Uncoated Letterpress Papers - Uncoated letterpress papers shall conform to the requirements listed in Tables IX or X,

5.10.1 Stock - As determined by TAPPI T401m, unbleached chemical wood pulp or groundwood pulp, singly or mixed, shall not exceed 10 per cent; the remainder shall be bleached chemical wood pulp.

5.10.2 Hydrogen Ion Concentration (pH) - The pH value of the paper shall be not less than 4.4, as determined by TAPPI T435m.

5.10.3 Finish - Type IV papers shall have a finish that is an acceptable visual match with the applicable reference sample provided by the purchaser, when evaluated as described in 7.2.1.

TABLE IX

Physical Requirements for Type IV, Supercalendered Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Bursting Strength minimum (CPPA D8)	Thickness average (CPPA D5)	Opacity minimum (TAPPI T425)
Pounds	Points	Inch	Per Cent
90	10	0.0025	80
100	10	0.0028	82
120	12	0.0033	85

TABLE X

Physical Requirements for Type IV, English Finish Papers

Basis Weight average (25 x 38-1000) (CPPA D3)	Bursting Strength minimum (CPPA D8)	Thickness average (CPPA D5)	Opacity minimum (TAPPI T425)
Pounds	Points	Inch	Per Cent
90	10	0.0030	85
100	10	0.0033	87
120	12	0.0040	91

6. PREPARATION FOR DELIVERY

6.1 The paper shall be packaged and packed, and the packages marked, as specified by the purchaser.

7. INSPECTION

7.1 Sampling - Sampling of book papers for inspection and testing shall be left to the discretion of the inspection authority.

7.2 Testing - With the exception of the method given in 7.2.1, the methods of testing shall be those of the Canadian Pulp and Paper Association (CPPA), and the Technical Association of the Pulp and Paper Industry (TAPPI), as indicated in each requirement.

7.2.1 Color and Finish Evaluation - Prepare the paper specimen by backing the specimen sheet with a number of sheets of the same paper to provide an essentially opaque specimen surface. Prepare the reference standard in the same way. Place the specimen and the reference standard on a table or bench in a viewing booth, of which the back and side walls are neutral grey in color, directly below an artificial daylight source comprising tungsten lamps and suitable glass filters that gives a color temperature of $7400 \pm 200^\circ\text{K}$. View the specimen and reference standard at an angle of 45 degrees.

(NOTE: In the absence of a suitable artificial daylight source, color evaluation may be done in front of a north window, preferably on an overcast day, with the light incident on the sample and standard at about 45 degrees and the observer viewing perpendicular to the two surfaces.)

8. NOTES

8.1 Ordering Data - Invitations to tender for book paper according to this standard should state the following:

- (a) Type and number or class.
- (b) Sheet size (see 5.1).
- (c) Weight (see 5.3).
- (d) Grain direction (see 5.5).
- (e) Packaging, packing and marking (see 6.1).

8.2 The publications listed in 2.1 may be obtained from the Technical Section, Canadian Pulp and Paper Association, Sun Life Building, Montreal, P.Q.

8.3 The publications listed in 2.2 may be obtained from the Technical Association, of the Pulp and Paper Industry, 360 Lexington Avenue, New York 17, N.Y., U.S.A.

Withdrawn/Retirée