

**Use information:** This paragraph is informational only and is not exclusively definitive of the end use.

For multicolor face and back offset printing of maps, books, pamphlets, periodicals, brochures, etc., and for high quality reproduction of satellite and high altitude imagery. Printed matter may include text, line illustrations, halftones up to 175-line screen, and reproduction of continuous-tone imagery by a random dot process.

*Unless the option below is specified, the following 'basic' specification applies.*

**Stock:** Groundwood pulp, not to exceed 1 pct.

*Note: Not less than 10 pct postconsumer fiber. Any percent over 10 percentage points, is encouraged, provided that the requirements of this Standard are met.*

**Acidity:** pH value of coating shall average not less than 6.5.

<b>Grammage</b> (g/m <sup>2</sup> ) .....	90	105	120
Basis weight: 25 by 38 inches, 500 sheets (pounds) .....	60	70	80
A tolerance of ±5 pct shall be allowed.			

**Folding endurance:** M.I.T., average, each direction, not less than (double folds) .....

	20	20	20
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*Note: This property is automatically waived if paper is not used in the production of folded maps.*

**Bursting strength:** Average, not less than (kPa) .....

	100	170	240
Equivalent (lb/in <sup>2</sup> ) .....	15	25	35

**Opacity:** Average, not less than (percent) .....

	93	94	95
No individual specimen shall average less than (percent) .....	91	92	93

**Thickness:** Average (mm) .....

	0.095	0.110	0.125
Equivalent (inch) .....	0.0037	0.0043	0.0049

A tolerance of ±0.013 mm (0.0005 inch) shall be allowed. Paper shall be uniform and shall not vary more than 0.011 mm (0.0004 inch) from one edge to the other.

**Gloss (75°):** Average, each side, not to exceed (percent) .....

	25	25	25
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**Smoothness of coating:** Average, each side, not to exceed (units) .....

	120	120	120
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**Oil holdout of coating:**<sup>2</sup> Paper shall be a "fully" coated sheet on both sides. There shall be no oil penetration at 200 seconds on either side.

*Any specimen showing any oil penetration at 200 seconds shall be sufficient cause for rejection of the paper.*

**General appearance:** Paper shall conform to the standard sample(s) adopted by the Government.

**Color:** The paper in the order (or publication) shall be uniform with the brightness not less than 81 pct. The color variation shall not exceed DE(CIELAB)=1.0.

**Formation:** Shall be uniform. The coating shall be uniformly applied; shall not be gritty, mottled, stippled, or ribbed in appearance; shall not crack or flake off.

**Cleanliness:** The dirt count for each side of the paper shall not exceed 100 specks per square meter. No sample sheet (600 to 650 cm<sup>2</sup> in size) shall contain more than one defect with an equivalent area of 0.25 mm<sup>2</sup> or greater.

**Sampling and testing:** Shall be conducted in accordance with standards in Part 2, *Government Paper Specification Standards*.

**OPTION**

**Option A:** Alkaline paper. This option is for products requiring above average permanence.

*The following requirements replace the same in the 'basic' specification.*

**Stock:** 100 pct bleached chemical woodpulp.

*Note: Postconsumer fiber, in any percentage, is encouraged, provided that the requirements of this Standard are met.*

**Acidity:** pH value by cold extraction shall average not less than 7.0 for both the coating and base paper.

*Any deviation in this requirement shall be sufficient cause for rejection of the paper.*

**Cleanliness:** The dirt count for each side of the paper shall not exceed 50 specks per square meter. No sample sheet (600 to 650 cm<sup>2</sup> in size) shall contain more than one defect with an equivalent area of 0.25 mm<sup>2</sup> or greater.

*Unless otherwise specified, the following is automatically waived when printing or duplicating is to be accomplished on commercial contract*

**Equilibrium relative humidity:** Shall be 45 pct ±8 pct at 23°C ±2°C.<sup>1</sup>

**Color:** Shall match the Government's standard sample for color. For information only, the CIELAB values (Ill D65, 10° observer) of the color standard are

$L^*=93.5$   
 $a^*=-0.5$   
 $b^*=1.5$

**Curl:** Paper shall lie flat with either no tendency to curl or with a curl which can be overcome under reasonable working conditions.

**Coating and surface:** Shall be uniform, free from mottle and any particles which will pick, lift, fluff, or pile on the blanket under normal press conditions.

**Size and trim:** Sheets: Paper shall be furnished in the size(s) ordered and shall be flat, trimmed square on four sides with clean smooth edges, and evenly jogged. A tolerance of ±2 mm (1/16 inch) shall be allowed except for sheets 216 by 356 mm (8 1/2 by 14 inches) or less; then a tolerance of ±1 mm (1/32 inch) shall be allowed. Successive sheets within any package shall not differ from each other by more than 0.5 mm (1/64 inch). Paper with the long dimension 813 mm (32 inches) or less shall be considered square if the variation does not exceed 1 mm (1/32 inch); over 813 mm (32 inches), 2 mm (1/16 inch).

**Grain:** Direction of the grain on flat paper shall be as ordered.

<sup>1</sup>This requirement may be waived when so stated in the procurement document. If waived, the following is applicable:  
Pressroom conditions: The bulk of this paper will be used in air-conditioned pressrooms maintained at 24°C ±2°C and 45 pct ±8 pct relative humidity.

<sup>2</sup>This test is similar to T-462 but with significant differences.