

Paper Types

Some of the most commonly used paper types are briefly described below.

1. **Bond and Writing**

This paper is reserved for letterhead and business forms. It is paper that distinguishes itself in that it is especially formulated to function well on typewriters, readily accepts the ink from a pen, and erases easily.

2. **Book & Offset**

These papers are the workhorses of the printing industry, used mostly in textbook and commercial applications. They come in a wide range of weights and bulk and are usually of antique or smooth finishes. Offset papers are additionally sized to adjust to surface picking and to the slight moisture present in offset printing.

3. **Coated Papers**

These papers are basically Book papers and Offset papers to which a glossy or mat coating has been added. They are usually geared to high quality markets because their glossy or mat finishes can produce striking end results.

4. **Text and Cover**

Text and matching Cover papers are distinguished by their unusual textures and special colors. Because of these papers' versatility, they are much favored by graphic designers.

5. **Index, Bristols and Tags**

These grades are known for their receptivity to ink and for their rigidity. Index and Bristols are a good choice wherever inexpensive stiff stock is required.

Tag paper is used mostly for manufacturing tags.

6. Carbonless Papers

These papers are treated with a special chemical coating so as to generate a copy under pressure from a pen or pencil, etc they function much like carbon paper but without the carbon interleaves.

They are either:

- a. Coated Back (CB) transmitting pressure to the sheet underneath,
- b. Coated Front (CF) accepting pressure, or
- c. Coated Back and Front (CFB) that receive and transmit pressure simultaneously.

7. Specialty Papers

Various papers used for specific applications such as: pressure sensitive, gummed, carbon etc.

Basis Weight Comparisons

Basis weight is simply the total weight of a particular paper when weighing 500 sheets at the basis, or parent size. So, 24 # Text is 500 25 x 38" sheets of text paper having a total weight of 24 pounds.

This chart indicates the weight caliper one would require, if one was to substitute a different type of paper than originally desired.

Example: If a 20 lbs Bond was unavailable, a 51 lbs Book could be substituted.

- Basis Weights in bold.
- All weights are for 500 sheet reams
- For Canadian M Weights, simply multiply the Basis Weight reams by 2

	Bond 17 X 22	Book 25 X 38	Cover 20 X 26	Bristol 22 1/2 X 28 1/2	Index 25 1/2 X 30 1/2	Tag 24 X 36
Bond	13	23	18	22	27	30
Ledger	16	41	22	27	33	37
Mimeo	20	51	28	34	42	46
Duplicator	24	61	33	41	50	56
Writing	28	71	39	48	58	64
	32	81	45	55	67	74
	36	91	50	62	75	82
	40	102	56	69	83	93
	44	112	61	75	92	102

Continued

Book	12	30	16	20	25	27
Offset	16	40	21	27	32	36
Text	18	45	24	30	37	41
	20	50	27	34	41	45
	24	60	32	40	49	55
	28	70	38	47	57	64
	31	80	43	53	66	73
	35	90	48	60	74	82
	39	100	53	57	81	91
	47	120	65	80	98	109
	59	150	80	100	123	136
Cover	29	73	40	49	69	66
	36	91	50	62	75	82
	43	110	60	74	90	100
	47	119	65	80	97	108
	58	146	80	99	120	134
	65	164	90	111	135	149
	72	183	100	124	150	166
Bristol	39	100	54	67	81	91
	47	120	65	80	90	109
	58	148	81	100	121	135
	70	176	97	120	146	162
	82	207	114	140	170	189
	93	237	130	160	194	216
	105	267	146	180	218	242
	117	296	162	200	243	269

Continued

Index	43	110	60	74	90	100
Bristol	53	135	74	91	110	122
	67	170	93	115	140	156
	82	208	114	140	170	189
	105	267	146	182	220	244

Tag	43	110	60	74	90	100
	54	137	75	93	113	125
	65	165	90	111	135	150
	76	192	105	130	158	175
	87	220	120	148	180	200
	109	275	151	186	225	250
	130	380	181	222	270	300

Average Paper Thickness

Coated Text

Basis Weight	Caliper
60 #	0.003
70 #	0.0035
80 #	0.004
100 #	0.0055
120 #	0.006

Uncoated Text

Basis Weight	Caliper
50 #	0.004
60 #	0.0045
70 #	0.005
80 #	0.006
100 #	0.0075
120 #	0.009

Coated Cover

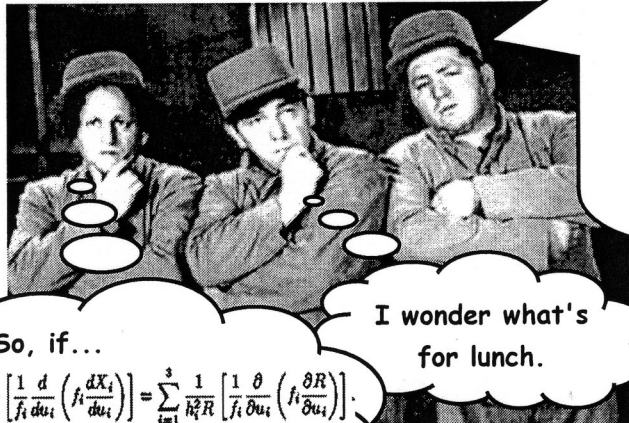
Basis Weight	Caliper
50 #	0.005
60 #	0.006
65 #	0.0065
80 #	0.008
100 #	0.01
110 #	0.011
120 #	0.012

Uncoated Cover

Basis Weight	Caliper
50 #	0.007
65 #	0.009
80 #	0.0105
100 #	0.0135
130 #	0.018

Basis Weight is the weight of one ream (five hundred sheets) of a standard size (basis, or parent) sheet of a particular paper stock.

Caliper is the average thickness of a typical sheet as measured by a micrometer. It will vary between types of paper stock, as well as being effected by factors, such as paper finish, inconsistent bulk within the sheet, and ambient humidity. For this reason several measurements should be taken across the sheet of which an average used to determine paper thickness.



Hot Diggety, Guys!
I get it!
A Ream is 500 Sheets!

Gee, that's a lot of beds!
Does that include the pillows?

So, if...

$$\sum_{i=1}^3 \frac{1}{h_i^2 X_i} \left[\frac{1}{f_i} \frac{d}{du_i} \left(f_i \frac{dX_i}{du_i} \right) \right] = \sum_{i=1}^3 \frac{1}{h_i^2 R} \left[\frac{1}{f_i} \frac{\partial}{\partial u_i} \left(f_i \frac{\partial R}{\partial u_i} \right) \right]$$

...then 80# white wove is...

I wonder what's
for lunch.



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GUIDE TO PRINTING PAPER GRADES

GRADE AND
BASIC SIZE

COMMON NAMES

FEATURES

SURFACES

BOND

17 x 22

Bond, Ditto,
Erasable, Forms,
Ledger, Mimeo,
Onionskin,
Photocopy, Rag,
Writing

Light weight,
Matching Envelopes
Pastels and Light
colors, Watermarked

Cockle, Laid, Linen,
Parchment, Ripple,
Wove

STANDARD SIZES

8½ x 11, 8½ x 14,
11 x 17, 17 x 22

WEIGHTS

20, 24

USES

Certificates, Directories
Flyers, Forms, Handbills,
Letterheads, Newsletters,
Photocopy, Quick Printing
Resumés

GRADE AND
BASIC SIZE

COMMON NAMES

FEATURES

SURFACES

UNCOATED BOOK
25 x 38

Book, Offset,
Opaque

Easy folding, Wide
range of colors

Antique, Smooth,
Vellum, Wove

STANDARD SIZES

17½x22½, 23 x 35
25 x38

WEIGHTS

50, 60, 70, 80

USES

Books, Brochures,
Calendars, Catalogs,
Direct Mail, Flyers,
Manuals, Newsletters,
Programs, Rare Books



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GUIDE TO PRINTING PAPER GRADES

<u>GRADE AND BASIC SIZE</u>	<u>COMMON NAMES</u>	<u>FEATURES</u>	<u>SURFACES</u>
TEXT 25 x 38	Text	Deckle edged, Textured; Wide range of colors	Antique, Embossed, Felt, Laid, Linen, Vellum
	<u>STANDARD SIZES</u>	<u>WEIGHTS</u>	<u>USES</u>
	23 x 35, 25 x 38	80, 100	Annual Reports, Announcements, Art Reproductions, Books, Brochures, Calendars, Posters, Self-mailers

<u>GRADE AND BASIC SIZE</u>	<u>COMMON NAMES</u>	<u>FEATURES</u>	<u>SURFACES</u>
COATED BOOK 25 x 38	Coated Offset, Dull, Enamel, Gloss, Matte, Slick	Good ink holdout, Ink gloss, Smooth surfaces; Usually white only	Cast, Dull, Embossed, Gloss, Matte
	<u>STANDARD SIZES</u>	<u>WEIGHTS</u>	<u>USES</u>
	19 x 25, 23 x 35 25 x 38	60, 70, 80, 100	Annual Reports, Books, Brochures, Calendars, Catalogs, Directories, Direct Mail, Magazines, Newsletters, Newspaper inserts, Posters



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GUIDE TO PRINTING PAPER GRADES

<u>GRADE AND BASIC SIZE</u>	<u>COMMON NAMES</u>	<u>FEATURES</u>	<u>SURFACES</u>
COVER 20 x 26	Bristol, Cls, C2S, Cast Coat, Cover Text cover	Durable, Stiff Strong	<u>Uncoated:</u> Antique Embossed, Felt, Laid, Linen, Smooth, Vellum, Wove <u>Coated:</u> Cast, Dull, Embossed, Gloss, Matte
	<u>STANDARD SIZES</u>	<u>WEIGHTS</u>	<u>USES</u>
	20 x 26, 23 x 35	65, 80, 100	Business cards, Calendars, Covers for Annual Reports, Books, Catalogs and Directories, Folders, Greeting cards, Invitations, Menus, Point of purchase displays, Post cards, Posters Table, Tents, Tickets

<u>GRADE AND BASIC SIZE</u>	<u>COMMON NAMES</u>	<u>FEATURES</u>	<u>SURFACES</u>
BOARD	Blanks, Bristols, Board, Card, Chip, Index, Plate,	Stiff, Strong, Thick, Variety of colors and surfaces	Coated, Embossed, Plate, Vellum, Water resistant
	<u>STANDARD SIZES</u>	<u>WEIGHTS</u>	<u>USES</u>
	22 x 28, 28 x 44	<u>Ply:</u> 4, 6, 8, 10, 14	Business reply cards, Covers, Displays, File folders, Paper boxes, Signs, Screen printed posters, Tags, Tickets



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BASIS WEIGHT

Basis weight is the weight in pounds of a ream (500 sheets) of paper to its basic size in inches. It represents the weight for a given area. Basic size or parent size is the sheet size in inches that has been adapted through practice and usage. It differs for various types of paper. The basic sizes of most commonly used stocks are as follows:

Bond	17	x	22
Book	25	x	38
Cover	20	x	26
Bristol	22½	x	28½

Basis weight is sometimes specified per 1,000 sheets. A Book paper with a basis weight of 60 lb. is designated as 25 x 38 - 120M, where M stands for 1,000 sheets of paper which in this case would weigh 120