

Paper Weights, Sizes, Terms

Basis Weight

The basis weight of a paper is the designated fixed weight of 500 sheets, measured in pounds, in that paper's basic sheet size. It is important to note that the "basic sheet size" is not the same for all types of paper.

Caliper

Caliper refers to the thickness of a sheet of paper expressed in thousandth of an inch. This measurement is taken with a micro meter. Normally, paper caliper should not have more than a + or - 5% variance within a sheet. Generally, the relation between caliper and basis weight the greater the caliper (the thicker the paper), the greater the paper weight.

Equivalent Weight

While different paper types have different basic sizes, papers can still be compared by using equivalent weight.

POINTS

Every POINT=.001 inch

For Example: 10 pt card = .010in

SIZE	WIDTH mm	HEIGHT mm	WIDTH in.	HEIGHT in.	USA Measure
A0	841	1,189	33.11	46.81	
A1	594	841	23.39	33.11	23" x 29" / 6-up "3/4-Size"
A2	420	594	16.54	23.39	
A3	297	420	11.69	16.54	11" x 17" / Tabloid
A4	210	297	8.27	11.69	8.5" x 11" / Letter
A5	148	210	5.83	8.27	
A6	105	148	4.13	5.83	
A7	74	105	2.91	4.13	
B0	1,028	1,456	40.48	57.32	
B1	728	1,028	28.66	40.48	28" x 40" / 8-up "Full-Size"
B2	514	728	20.24	28.66	20" x 28" / 4-up "Half-Size"
B3	364	514	14.33	20.24	
B4	257	364	10.12	14.33	
B5	182	257	7.17	10.12	
B6	128	182	5.04	7.17	

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Equivalent Weight Table								GSM
Bond Ledger	Offset Text	Cover -	Tag --	Index -	Points -	*Caliper (inches)	milli-meters	Metric (gsm /sq meter)
16	40	22	37	33	3.2	0.0032	0.081	60.20
18	45	24	41	37	3.6	0.0036	0.092	67.72
20	50	28	46	42	3.8	0.0038	0.097	75.20
24	60	33	56	50	4.8	0.0048	0.12	90.30
28	70	39	64	58	5.8	0.0058	0.147	105.35
29	73	40	62	60	6	0.006	0.152	109.11
31	81	45	73	66	6.1	0.0061	0.155	116.63
32			74	67				120.00
35	90	48	80	74	6.2	0.0062	0.157	131.68
36	90	50	82	75	6.8	0.0068	0.173	135.45
39	100	54	90	81	7.2	0.0072	0.183	146.73
40	100	56	93	83	7.3	0.0073	0.185	150.50
43	110	60	100	90	7.4	0.0074	0.188	161.78
44	110	61	102	92	7.6	0.0076	0.193	165.55
47	120	65	108	97	8	0.0078	0.198	176.83
53	135	74	122	110	9	0.0085	0.216	199.41
54	137	75	125	113	9	0.009	0.229	203.17
58	146	80	134	120	9.5	0.0092	0.234	218.22
65	165	90	150	135	10	0.0095	0.241	244.56
67	170	93	156	140	10.5	0.01	0.25	252.08
72	183	100	166	150	11	0.011	0.289	270.90
76	192	105	175	158	13	0.013	0.33	285.95
82	208	114	189	170	14	0.014	0.356	308.52
87	220	120	200	180	15	0.015	0.38	312.00
105	267	146	244	220	18	0.0175	0.445	385.06

Paper Type	Basic Size - 500 Sheets
"Bond" Ledger Mimeo Duplicator Rag Paper	17" x 22"
"Offset" Book Text Coated Paper	25" x 38"
"Cover"	20" x 26"
"Tag Stock"	24" x 36"
"Index"	25-1/2" x 30-1/2"

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Glossary of Paper Terms

- Acid Free Paper

Paper manufactured to a neutral pH reading (7). Used for fine art prints, limited edition printing, scrapbooking

- Antique Finish

Random surface quality created by "felts" in the manufacturing process

- Brightness

Light reflecting property of paper when measured under a specially calibrated blue light.

- Basis Weight

The weight of one ream of paper (500 sheets) when cut to the industry standard for that specific grade of paper.

- Bristols

Solid or laminated heavy-weight printing paper made to a thickness of .006" or higher. Bristols are often used for printed items that require repeated handling.

- Bulk

The thickness of paper when compared to its weight. A high bulk paper is thicker but less compact than a low-bulk paper of the same weight and size.

- Calendering

Part of the paper manufacturing process where the paper "web" passes between polished metal rolls. This increases the paper's smoothness and provides a uniform thickness (caliper).

- Bond

Uncoated "plain" paper - free from impurities. Also referred to as "free sheet."

- Recycled

Paper manufactured from the waste paper stream. All Micro Format recycled products contain a minimum of 100% recycled material including 40% post consumer waste

- Carbonless

Paper coated with special encapsulated chemicals that produce a duplicate copy without the use of carbon paper

- Thermal

A paper coated with special chemicals that produce an image when heat is applied

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HELPFUL GUIDELINES for PAPER USAGE

- Prior to use, paper should be allowed to acclimate at least 48 Hours in the environment in which it will be used. Optimum storage facility would retain temperatures between 70-80 degrees F with 50% relative humidity.
- Before loading paper into a printer, fan the sheets on all four sides. This creates a small layer of air between the sheets which should help printer feeding mechanisms.
- Upon Completion, the unused material should be stored in a closed package, re-sealed and stored flat.

ISO paper sizes (plus rounded inch values)

Format	A series[3]		B series[4]		C series[5]	
	mm × mm	in × in	mm × mm	in × in	mm × mm	in × in
0	841 × 1189	33.1 × 46.8	1000 × 1414	39.4 × 55.7	917 × 1297	36.1 × 51.1
1	594 × 841	23.4 × 33.1	707 × 1000	27.8 × 39.4	648 × 917	25.5 × 36.1
2	420 × 594	16.5 × 23.4	500 × 707	19.7 × 27.8	458 × 648	18.0 × 25.5
3	297 × 420	11.7 × 16.5	353 × 500	13.9 × 19.7	324 × 458	12.8 × 18.0
4	210 × 297	8.27 × 11.7	250 × 353	9.84 × 13.9	229 × 324	9.02 × 12.8
5	148 × 210	5.83 × 8.27	176 × 250	6.93 × 9.84	162 × 229	6.38 × 9.02
6	105 × 148	4.13 × 5.83	125 × 176	4.92 × 6.93	114 × 162	4.49 × 6.38
7	74 × 105	2.91 × 4.13	88 × 125	3.46 × 4.92	81 × 114	3.19 × 4.49
8	52 × 74	2.05 × 2.91	62 × 88	2.44 × 3.46	57 × 81	2.24 × 3.19
9	37 × 52	1.46 × 2.05	44 × 62	1.73 × 2.44	40 × 57	1.57 × 2.24
10	26 × 37	1.02 × 1.46	31 × 44	1.22 × 1.73	28 × 40	1.10 × 1.57





