



## Paper Thickness Average Caliper Bulking Chart

These are averages. Variations will be found if paper is run on light or heavy side of basis weight, depending on various mill runs. The thicker the caliper, the wider the variation.

	Basis	Thickness (Inches)
<b>Bond, Cotton Fiber</b> (Flat Finish) <b>17" x 22"</b>	13	.0025
	16	.003
	20	.0035
	24	.004
(Cockle Finish)	13	.003
	16	.0035
	20	.004
	24	.00475
<b>Bond, Sulphite</b> <b>17" x 22"</b>	13	.003
	15	.0035
	20	.004
	24	.0045
<b>Ledger</b> <b>17" x 22"</b>	24	.004
	28	.005
	32	.0055
	36	.006
<b>Coated Book</b> (Gloss) <b>25" x 38"</b>	60	.003
	70	.0035
	80	.004
	100	.005
	120	.006
<b>Coated Book</b> (Dull) <b>25" x 38"</b>	70	.004
	80	.0045
	100	.0055
<b>Offset</b> (Regular Finish) <b>25" x 38"</b>	50	.00375
	60	.0045
	70	.005
	80	.0055
	100	.007
	120	.008
	150	.010

	Basis	Thickness (Inches)
<b>Cover</b> (Uncoated) <b>20" x 26"</b>	50	.0065
	65	.0095
	80	.0115
<b>Cover</b> (Coated) <b>20" x 26"</b>	60	.0055
	80	.008
	100	.010
<b>Index Bristol</b> <b>25.5" x 30.5"</b>	90	.007
	110	.0085
	140	.011
<b>Vellum Bristol</b> <b>Cover</b> <b>22.5" x 28.5"</b>	57	.007
	67	.008
	80	.010
<b>Tag</b> <b>24" x 36"</b>	100	.007
	125	.009
	150	.011
	175	.013
	200	.015

	Ply	Thickness
<b>Board</b> <b>22" x 28"</b>	3	.015
	4	.018
	5	.021
	6	.024
	8	.030
	10	.036

**Note:** Minimum thickness for a standard post card is .007"

## Bulk Determination Table For Books

Four sheets (eight pages) of paper measured by a micrometer will produce the number of pages opposite the readings to bulk one inch. Four sheets (8 pages) are typically measured to get a better average reading than would be obtained by measuring a single sheet. Note: number of pages (front and back of sheet) is twice the number of sheets of paper.

Caliper 4 sheets	Pages per Inch
.0055	1,454
.006	1,332
.0065	1,323
.007	1,142
.0075	1,066
.008	1,000
.0085	942
.009	890
.0095	842
.010	800
.0105	762
.011	728
.0115	696
.012	666
.0125	640
.013	616
.0135	594
.014	570
.0145	552
.015	534
.0155	516
.016	500
.0165	484
.017	470
.0175	456
.018	444
.0185	432
.019	420
.0195	410
.020	400
.0205	390
.021	380
.0215	372
.022	364
.0225	356

### Formula:

To determine the bulk of a given number of pages: Caliper eight pages (four sheets) and then multiply the result by the given number of pages and divide by 8.

### Example:

Eight pages caliper .016. What will 320 pages bulk?  
 $320 \times .016 \div 8 = .640$   
 Answer: .640" or approximately  $\frac{5}{8}$ "

Caliper 4 sheets	Pages per Inch
.023	348
.0235	340
.024	332
.0245	326
.025	320
.0255	314
.026	308
.0265	302
.027	296
.0275	290
.028	286
.0285	280
.029	276
.0295	272
.030	268
.0305	262
.031	258
.0315	254
.032	250
.0325	246
.033	242
.0335	238
.034	234
.0345	232
.035	230
.0355	224
.036	222
.0365	220
.037	216
.0375	214
.038	212
.0385	208
.039	206
.0395	202
.040	200

### Formula:

To determine the number of pages per inch: Caliper eight pages and refer to the chart.

### Example:

Eight pages caliper .016. How many pages per inch?  
 Answer: 500 pages per inch