



International Paper Comparison Tables

Metric weight	American basis wt.	Text Paper (coated)	Caliper (inches)	Bulk in PPI (pages / inch)	Opacity %	Brightness %
80gsm	55#	Japanese White A Gloss	.0026	769	91	89
		Japanese White A Matte	.0032	625	90	90
		Chinese GoldEast Gloss	.0026	769	91	88
		Chinese GoldEast Matte	.0028	714	90	90
90gsm	60#	Finnish Lumi Gloss	.0029	690	91	99
		Finnish Lumi Silk	.0032	625	92	99
		Sterling Ultra Gloss	.0028	714	92	90
		Sterling Ultra Matte	.0034	588	94	90
		Korean Pacesetter Gloss	.0028	714	93	91
		Korean Pacesetter Matte	.0032	625	94	91
95gsm	65#	Japanese White A Gloss	.0031	645	94	90
		Japanese White A Matte	.0038	526	93	90
		Chinese GoldEast Gloss	.0030	667	93	88
		Chinese GoldEast Matte	.0034	588	92	90
100gsm	67#	Finnish Lumi Gloss	.0032	625	93	99
		Finnish Lumi Silk	.0035	571	94	99
105gsm	70#	Korean Pacesetter Gloss	.0033	606	94	91
		Korean Pacesetter Matte	.0038	526	95	91
		Chinese GoldEast Gloss	.0034	588	94	89
		Chinese GoldEast Matte	.0039	513	94	91
		Sterling Ultra Gloss	.0033	606	94	90
		Sterling Ultra Matte	.0039	513	95	90
		Japanese White A Gloss	.0034	588	95	90
		Japanese White A Matte	.0044	455	94	90
115gsm	77#	Finnish Lumi Gloss	.0035	571	94	99
		Finnish Lumi Silk	.0038	526	95	99
		Chinese GoldEast Gloss	.0038	526	96	89
		Chinese GoldEast Matte	.0044	455	95	91
		Japanese White A Gloss	.0037	541	96	90
		Japanese White A Matte	.0047	426	94	90
120gsm	80#	Korean Pacesetter Gloss	.0038	526	95	91
		Korean Pacesetter Matte	.0042	476	95	91
		Sterling Ultra Gloss	.0037	541	95	90
		Sterling Ultra Matte	.0046	435	96	90
128gsm	85#	Japanese White A Gloss	.0042	476	98	90
		Japanese White A Matte	.0054	370	94	90
		Chinese GoldEast Gloss	.0042	476	97	89
		Chinese GoldEast Matte	.0048	417	96	91
130gsm	87#	Finnish Lumi Gloss	.0038	526	94	99
		Finnish Lumi Silk	.0042	476	95	99
140gsm	95#	Chinese GoldEast Gloss	.0045	444	97	89
		Chinese GoldEast Matte	.0054	370	96	91
		Japanese White A Gloss	.0045	444	97	90
		Japanese White A Matte	.0061	328	98	90
150gsm	100#	Finnish Lumi Gloss	.0047	426	96	99
		Finnish Lumi Silk	.0049	408	97	99
		Sterling Ultra Gloss	.0047	426	97	90
		Sterling Ultra Matte	.0061	328	98	90
		Korean Pacesetter Gloss	.0047	426	98	91
		Korean Pacesetter Matte	.0056	357	98	91
157gsm	105#	Chinese GoldEast Gloss	.0050	400	98	89
		Chinese GoldEast Matte	.0062	323	98	91
		Japanese White A Gloss	.0050	400	98	90
		Japanese White A Matte	.0070	285	99	90
170gsm	115#	Finnish Lumi Gloss	.0050	400	96	99
		Finnish Lumi Silk	.0058	345	97	99
		Sterling Ultra Matte	.0074	270	98	90
200gsm	135#	Finnish Lumi Gloss	.0060	333	97	99
		Finnish Lumi Silk	.0070	286	98	99

Woodfree (Uncoated Offset) Paper

Metric weight	American basis weight	Text paper	Caliper (inches)	Bulk in PPI (pages per inch)
80gsm	54#	Thailand AA Japanese NPI	.004 .0038	500 526
100gsm	67#	Thailand AA Japanese NPI	.005 .0042	400 476
120gsm	80#	Thailand AA Japanese NPI	.006 .0050	333 400
140gsm	95#	Thailand AA Japanese NPI	.007 .0062	286 323
180gsm	120#	Thailand AA Japanese NPI	.009 .0085	222 308

Recommendations:
 For maximum bulk, use Thai AA.
 For printability and smoothness, use Japanese NPI.

Recommended Endsheets:

100/105# white offset = 150/157gsm woodfree

Rule of Thumb Converter:

$2/3 \times \text{gsm} = ? \text{ lbs.}$

$3/2 \times \text{lbs.} = ? \text{ gsm}$

Text Paper Conversion Formula:

Lbs. \times 1.5 = gsm

(i.e. 80lbs. \times 1.5 = 120gsm)

SOFTCOVER (C2S Artboard)

US basis cover weight	Metric weight	Caliper (inches)	Pt. Size (Bulk)
80#	190gsm	.008	8pt.
90#	210gsm	.009	9pt.
100#	230gsm	.010	10pt.
	260gsm	.012	12pt.
	310gsm	.014	14pt.
	370gsm	.016	16pt.
	420gsm	.019	19pt.

CASEBOARD (Hardcover)

Metric	USA	Asia	Europe
2.0mm	.080 (80pt)	24oz	1240gsm
2.5mm	.100 (100pt)	32oz	1640gsm
3.0mm	.120 (120pt)	40oz	2040gsm
3.5mm	.140 (140pt)	48oz	2450gsm
4.0mm	.160 (160pt)	56oz	2800gsm

Minimum Recommended Caseboard Thickness

80 pt board = Children's Books (32pp)
 100 pt board = 8-1/2" x 11" or smaller
 120 pt board = 9" x 12"
 140 pt board = oversized books

Spine Width Calculator

Spine Width = Book Block Thickness + Case Thickness

- 1. To find book block thickness, you must know:**
 - . Number of pages in the book (not including endsheets)
 - . Type of paper used in text (weight & country of origin)
 - . Bulk of paper in PPI (refer to Paper Equivalency Table)
 - . Round back or square back (with board in spine)
 - 2. Book block thickness – number of pages divided by PPI**
 - . Example: 240pp book using 416 PPI Korean matte
 - . 240pp divided by 416 PPI = .58" thick
 - . Note: Round up decimals to nearest 1/32" (.58" = 19/32")
 - 3. Case thickness = (2.5 x board thickness in inches)**
 - . Example: 100pt. boards over imitation cloth + endsheets
 - . (2.5 x .100") = .25" thick (.25" = 1/4")
 - . Note: Formula allows for case material + endsheets + expansion
 - 4. Spine width = book block thickness + case thickness**
 - . Example: .58" book block + .25" case = .83" spine width
 - . Spine width = .83" = 27/32" = 21mm
 - . Note: If book has a round back, add 10% to spine width
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Decimal & Metric Equivalents: Inches & Millimeters Conversion Chart

Fractional Inches	Decimal Inches	mm
1/64	.02"	0.4 mm
1/32	.03"	0.8 mm
1/16	.06"	1.6 mm
3/32	.09"	2.4 mm
1/8	.12"	3.2 mm
5/32	.16"	4.0 mm
3/16	.19"	4.8 mm
7/32	.22"	5.5 mm
1/4	.25"	6.3 mm
9/32	.28"	7.1 mm
5/16	.31"	7.9 mm
11/32	.34"	8.7 mm
3/8	.37"	9.5 mm
13/32	.41"	10.3 mm
7/16	.44"	11.1 mm
15/32	.47"	11.9 mm
1/2	.50"	12.7 mm
17/32	.53"	13.5 mm
9/16	.56"	14.3 mm
19/32	.59"	15.1 mm
5/8	.62"	15.9 mm
21/32	.66"	16.7 mm
11/16	.69"	17.5 mm
23/32	.72"	18.3 mm
3/4	.75"	19.0 mm
25/32	.78"	19.8 mm
13/16	.81"	20.6 mm
27/32	.84"	21.4 mm
7/8	.87"	22.2 mm
29/32	.90"	23.0 mm
15/16	.93"	23.8 mm
31/32	.96"	24.6 mm
1 inch	1.0"	25.4 mm

How To Convert To Metric

Length		
When you know	Multiply by	To find
Inches	2.54	cm
Inches	25.4	mm
Miles	1.609	km
Centimeters (cm)	0.394	inches
Millimeters (mm)	.039	inches
Kilometers (km)	0.621	miles
Weight		
When you know	Multiply by	To find
Pounds	0.454	kg
Tons (2000lbs.)	0.907	metric tons
Kilograms (kg)	2.205	lbs.
Metric tons	1.202	tons

