DESIGN & PRINT · CHEAT SHEET

Paper *size chart*.

ISO 216 A & B series (international standard) and **ANSI** US Letter family. Plus bleed margins, safe-area conventions, and the math behind why A4 has the proportions it does.

ISO 216 A series

Each size has an aspect ratio of `1 : √2` (≈ 1.414) — so cutting any A-size in half across the long edge gives two of the next size down. A0 is defined as 1 m² of area. The "international standard" used by ~96% of the world.

SIZE	DIMENSIONS (MM)	DIMENSIONS (INCH)	AREA
4A0	1682 × 2378 mm	66.22 × 93.62"	4.000 m²
2A0	1189 × 1682 mm	46.81 × 66.22"	2.000 m²
A0	841 × 1189 mm	33.11 × 46.81"	1.000 m²
A1	594 × 841 mm	23.39 × 33.11"	0.500 m²
A2	420 × 594 mm	16.54 × 23.39"	0.249 m²
A3	297 × 420 mm	11.69 × 16.54"	0.125 m²
A4	210 × 297 mm	8.27 × 11.69"	0.062 m²
A5	148 × 210 mm	5.83 × 8.27"	0.031 m²
A6	105 × 148 mm	4.13 × 5.83"	0.016 m²

SIZE	DIMENSIONS (MM)	DIMENSIONS (INCH)	AREA
A7	74 × 105 mm	2.91 × 4.13"	0.008 m²
A8	52 × 74 mm	2.05 × 2.91"	0.004 m²
A9	37 × 52 mm	1.46 × 2.05"	0.002 m²
A10	26 × 37 mm	1.02 × 1.46"	962 mm²

ISO 216 B series

B sizes are *geometric means* of adjacent A sizes — used for posters, books, envelopes, and any time you need a size that falls between two A sizes.

SIZE	DIMENSIONS (MM)	DIMENSIONS (INCH)
B0	1000 × 1414 mm	39.37 × 55.67"
B1	707 × 1000 mm	27.83 × 39.37"
B2	500 × 707 mm	19.69 × 27.83"
B3	353 × 500 mm	13.90 × 19.69"
B4	250 × 353 mm	9.84 × 13.90"
B5	176 × 250 mm	6.93 × 9.84"
B6	125 × 176 mm	4.92 × 6.93"
B7	88 × 125 mm	3.46 × 4.92"
B8	62 × 88 mm	2.44 × 3.46"

US / ANSI series

The US system originated separately from ISO 216 and uses 8.5″ × 11″ as the standard (ANSI A). Each ANSI size doubles by halving (like the A series), but the aspect ratio *alternates* between 1.294 and 1.545, so the sizes aren't geometrically similar to each other.

SIZE	INCHES	MILLIMETERS
Letter / ANSI A	8.5 × 11"	216 × 279 mm
Legal	8.5 × 14"	216 × 356 mm
Tabloid / ANSI B	11 × 17"	279 × 432 mm
ANSI C	17 × 22"	432 × 559 mm
ANSI D	22 × 34"	559 × 864 mm
ANSI E	34 × 44"	864 × 1118 mm
Half Letter	5.5 × 8.5"	140 × 216 mm
Junior Legal	5 × 8"	127 × 203 mm
Government Letter	8 × 10.5"	203 × 267 mm

Bleed and safe area for print design

When you design something to be printed and trimmed, the actual cut isn't perfectly precise — typical commercial cutting tolerance is ±1–2 mm. To avoid an unprinted edge after trimming, you extend the design *past* the trim line by the bleed amount, then trim back to the final size.

STANDARD	BLEED	SAFE AREA INSET	WHEN TO USE
Digital print (short run)	3 mm (1/8")	3 mm	Standard for digital business cards, flyers, brochures.
Offset print (commercial)	3 mm (1/8")	3-5 mm	Standard for commercial offset.
Large format / poster	5-10 mm	10 mm	Bigger sizes = more cutting tolerance needed.
Book covers / wrap	10-15 mm	5-10 mm from spine	Wrap and spine variations need bigger bleed.
Packaging / die-cut	3 mm	3-5 mm from die line	Die-cutting tolerance similar to trim.
US trade ("full bleed")	1/8" (3.175 mm)	1/8"	US shops often spec in inches; same idea.

Common pitfalls

- **A4 ≠ Letter.** A4 (210 × 297 mm) is narrower and taller than US Letter (216 × 279 mm). A document designed for one won't fit cleanly on the other. Use "scale to fit" carefully — text can become unreadably small or oversized.
- **Forgetting bleed crashes designs at the print shop.** If your background extends to the edge of the trim line (with no bleed), the trim tolerance shows as a white sliver. Always extend bleed by 3 mm minimum.
- **Safe area protects critical content.** Text or logos near the edge get clipped if the trim is off. Keep ≥ 3 mm (better: 5 mm) inside the trim for text.
- **"Letter size paper" varies by country.** In the US/Canada/Mexico, it's 8.5 × 11. In Latin America, "carta" is also 8.5 × 11. Most of the world: A4.
- **Envelope sizes don't follow paper sizes.** #10 (US business envelope) and DL (European business envelope) are different. C4 envelopes fit unfolded A4; DL envelopes fit A4 folded in thirds.

Common questions

Why is A4 the size it is?

A4 is based on the ISO 216 √2 ratio: when folded in half lengthwise, you get A5 with the same proportions. The full sheet A0 is exactly 1 m² of area; each smaller size halves that area while keeping the aspect ratio. So A4 = 1/16 m² = 210 × 297 mm. The √2 ratio makes scaling between sizes mathematically clean.

Is US Letter the same as A4?

Close, but not the same. US Letter is 8.5 × 11 in (216 × 279 mm); A4 is 210 × 297 mm. A4 is taller and slightly narrower. Documents designed for one don't always fit the other — a margin-tight A4 PDF may have content cut off when printed on US Letter, and vice versa.

What's the largest standard paper size?

In the A series, A0 = 841 × 1189 mm (about 33.1 × 46.8 in) — roughly poster size. Above that, ISO defines 2A0 and 4A0 for special applications. In US sizes, the largest common is Bond E (34 × 44 in) used for architectural and engineering drawings.

How do I figure out what envelope to use for an A4 letter?

DL envelope (110 × 220 mm) holds A4 folded in three. C5 envelope (162 × 229 mm) holds A4 folded in half. C4 envelope (229 × 324 mm) holds A4 unfolded. The C-series and DL are sized specifically to match the A-series; never mix US #10 (104 × 241 mm) with A4 — it's a slightly different fold.

What's the deal with 'B' paper sizes?

ISO B-series sizes sit between A-series sizes — B5 is bigger than A5 but smaller than A4. They're used for books, posters, and passports (B7). The dimensions are the geometric mean of adjacent A sizes. B-series is less common in office use but very common for books and special print products.

Sources

- **A and B series:** ISO 216:2007 — Writing paper and certain classes of printed matter — Trimmed sizes — A and B series.
- **C series envelopes:** ISO 269 (now part of ISO 216).
- **US sizes:** ANSI/ASME Y14.1 — Decimal Inch Drawing Sheet Size and Format.
- **Bleed conventions:** Vary by printer; the values above are widely-accepted industry standards.

Disclaimer. Always confirm bleed and safe-area requirements with your specific print provider, especially for non-standard formats, packaging, or large-format work.