Down to Basics

Paper and card is the most used material in card making and so we should look at some aspects of this important material. Paper and card is mostly made from wood pulp, but linen and cotton are also sometimes used. A suspension of wood or other fibres in water are filtered through a screen to randomly lay down a mat of interwoven fibres. The water is then removed by squeezing the mat through rollers and drying with warm air. Sometimes a fine layer of chalky material is introduced to the final layer to give a whiter appearance, also the paper may be bleached which also whitens the paper.

Paper of card is made in a variety of thicknesses. In Europe we refer to the thickness of card in GSM (grams per square metre), which is actually is a weight rather than a thickness. In the USA they use pounds. Pound weight is the weight of 500 sheets of 20 by 26 in (508 by 660 mm) paper. This differs from how text stock is determined, which assumes 500 sheets of 25 by 38 in (635 by 965 mm) paper.

In the U.S., card stock thickness is usually measured in *points* or *mils* that give the thickness of the sheet in thousandths of an inch. For example, a 10 pt. card is 0.010 in (0.254 mm) thick (roughly corresponding to a weight of 250 g/m^2); 12 pt. is 0.012 in (0.3048 mm).

Approximate conversions

Poundage, or grammage, refer to the weight of the paper, and points refers to its actual thickness. This being the case there is no absolute conversion from pounds or grams per square metre (g/m²) to pts as paper density may vary slightly. The following table shows the approximate conversion values.

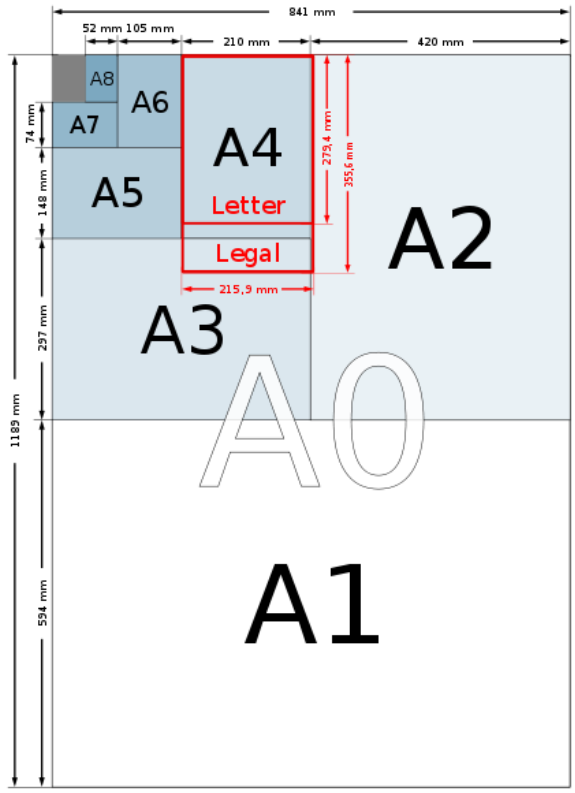
Single-sided coating			Double-sided coating		
pt	g/m²	lb	pt	g/m²	lb
6	148	55	6	166	60
8	184	70	8	201	75
10	219	80	10	237	88
12	247	90	12	265	98
14	274	100	14	293	108

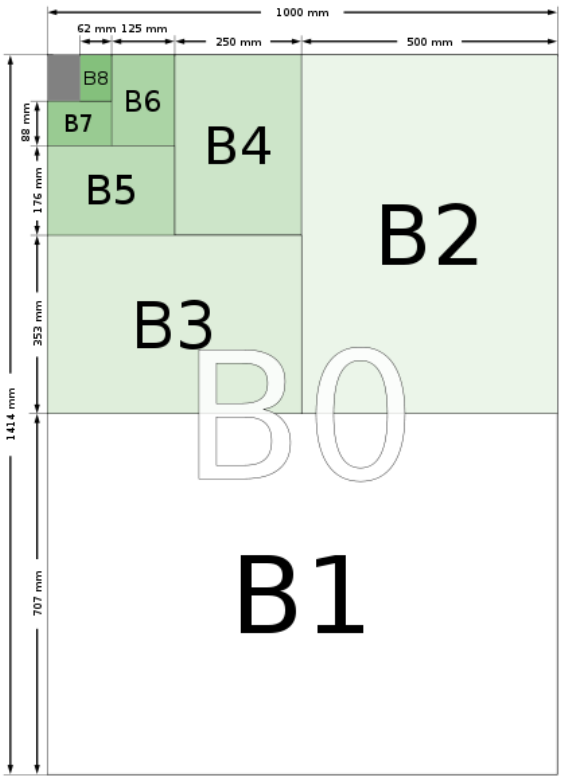
What size?

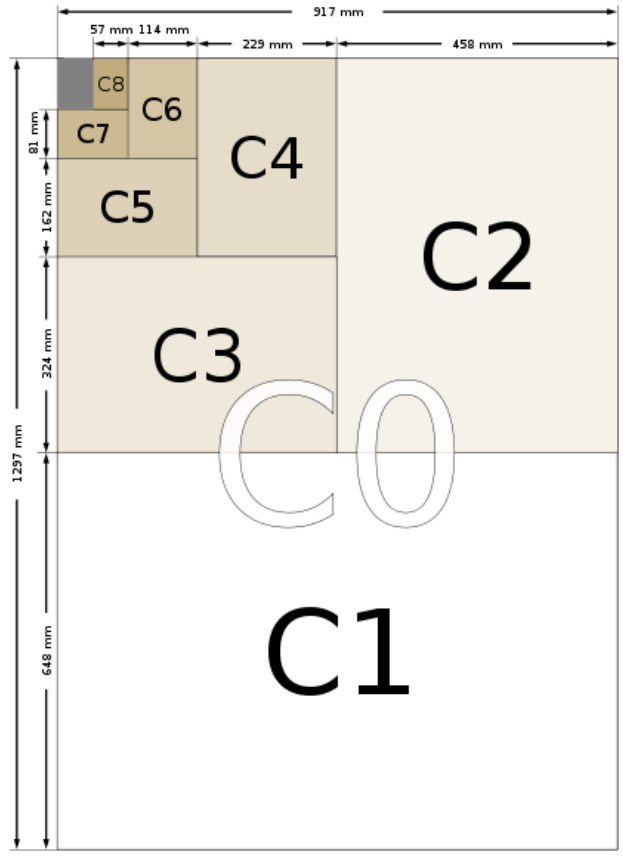
Not only do we need to know about how thick the paper we use, but also what size!

The most recognised paper size used throughout Europe and most of the rest of the world (except USA), is the ISO standard paper sizes. I could bore you with how they originally determined the sizes, but that is irrelevant . There are 3 series of sizes in the ISO standards A, B and C sizes. We in crafting mostly use A sized paper and when buying envelopes we refer to them in B sizes. Because of the way that this standard has been designed C4 is slightly larger than A4, and B4 slightly larger than C4. The practical usage of this is that a letter written on A4 paper fits inside a C4 envelope, and

a C4 envelope fits inside a B4 envelope. Below is a table showing all of the sizes and 3 diagrams that show how the paper sizes are derived.







As you can see from these diagrams, starting with the largest size A0, the next size is half of the size on the longest side, thus being half its area. This principle applies to all three series of sizes.

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ISO paper sizes (plus rounded inch values)

Format	A series		B series		C series	
Size	**mm x mm**	**in x in**	**mm x mm**	**in x in**	**mm x mm**	**in x in**
0	841×1189	33.11×46.81	1000×1414	39.37×55.67	917×1297	36.10×51.06
1	594 × 841	23.39×33.11	707×1000	27.83×39.37	648×917	25.51×36.10
2	420 × 594	16.54×23.39	500 × 707	19.69×27.83	458 × 648	18.03×25.51
3	297 × 420	11.69×16.54	353 × 500	13.90×19.69	324 × 458	12.76×18.03
4	210 × 297	8.27 × 11.69	250 × 353	9.84 × 13.90	229 × 324	9.02 × 12.76
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

The tolerances specified in the standard are

- ±1.5 mm (0.06 in) for dimensions up to 150 mm (5.9 in),
- ±2 mm (0.08 in) for lengths in the range 150 to 600 mm (5.9 to 23.6 in) and
- ±3 mm (0.12 in) for any dimension above 600 mm (23.6 in).

Now we have looked at the thickness and size of card we will look at the formats and type of greetings cards in the next article.